

5.16 ft/s

weekly

Calculate Erosion Hazard

4

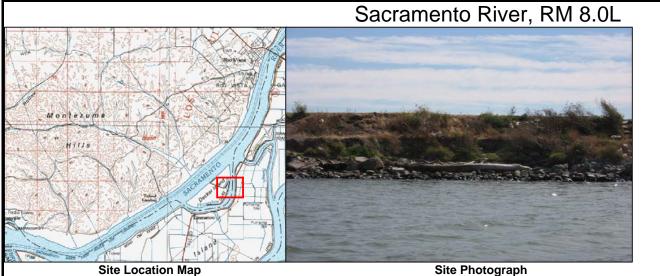
4

51

Velocity (*2)

Human Usage

Erosion Hazard



Site Location Map Site Photograph Cross Section
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	5	near vertical
Berm Width (*2) - Estimated	5	no berm
Location of erosion	2	levee slope
Bank Stability	4	vertical for more than half bank height
Site Relative to Bend	3	outside of a greater than 90 degree bend
Vegetation Cover	2	40 to 50 %
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.13 ft/s
Human Usage	4	adjacent to road, weekly
Engaine Hamand	F4	Calculate Funcion Harrard

Erosion Hazard 51 Calculate Erosion Hazard

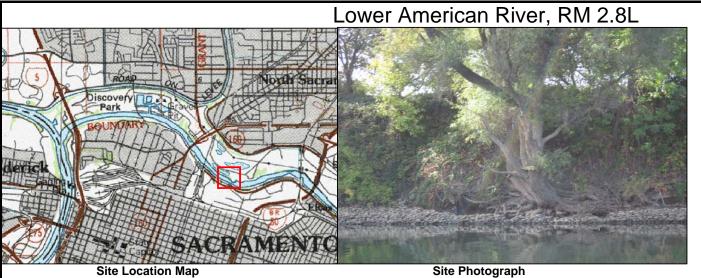
Freepoll Some Rado S



Site Location Map

Site Photograph

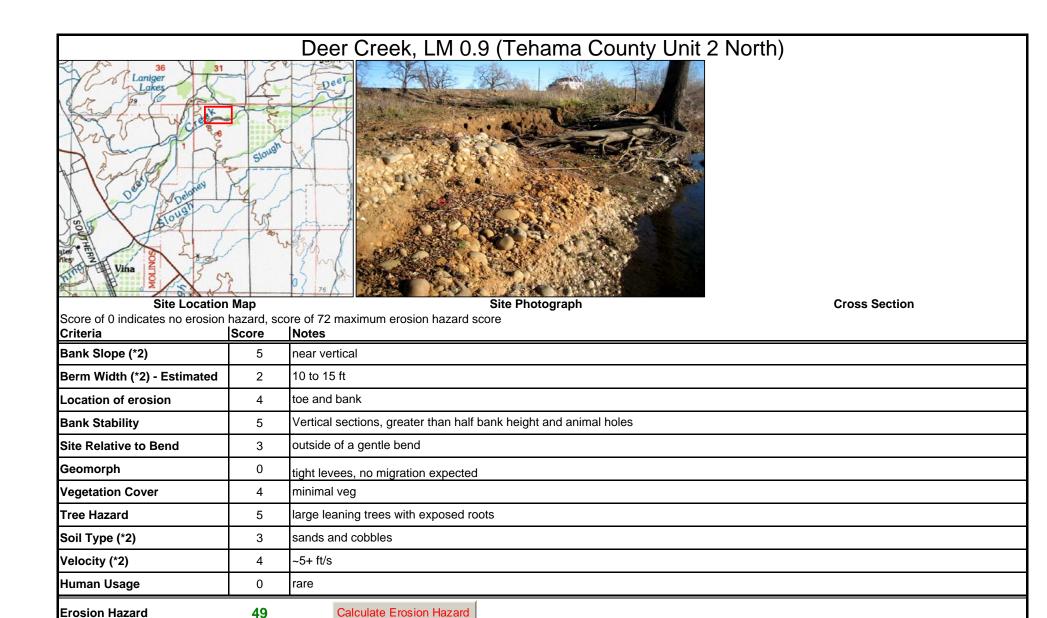
Score of 0 indicates no erosion Criteria	hazard, so Score	core of 72 maximum erosion hazard score Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	5	no berm
Location of erosion	4	toe and lower bank
Bank Stability	2	vertical sections, less than half bank height
Site Relative to Bend	1	straight
Vegetation Cover	1	60 to 70 %
Tree Hazard	5	large trees, exposed roots, and leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.36 ft/s
Human Usage	5	daily
Erosion Hazard	50	Calculate Erosion Hazard

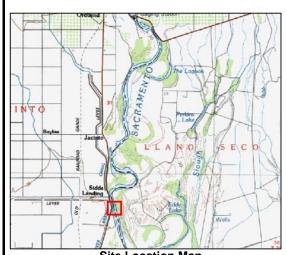


Site Location Map
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	2	10 to 20 ft
Location of erosion	4	whole bank and toe
Bank Stability	5	caves greater than 4 ft and vertical sections
Site Relative to Bend	2	just downstream of a bend
Vegetation Cover	2	50 -60%
Tree Hazard	5	trees with exposed roots, some leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.39 ft/s
Human Usage	5	Debris and paths indicative of daily use
Erosion Hazard	49	Calculate Erosion Hazard



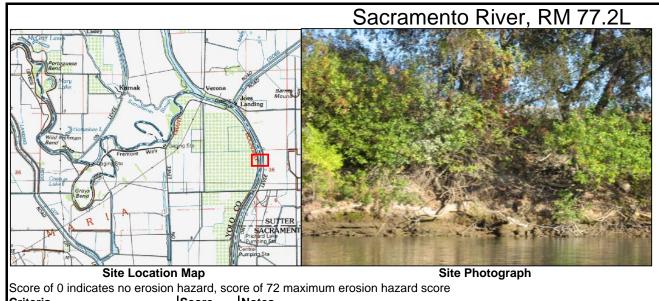


Sacramento River, RM 177.8R



Site Location Map Sit

One Location	ii iiiup	One i netograph	
Score of 0 indicates no erosion Criteria	hazard, so Score	core of 72 maximum erosion hazard score Notes	
Bank Slope (*2)	3	1.5:1 slope	
Berm Width (*2) - Estimated	5	no berm	
Location of erosion	4	upper bank and toe	
Bank Stability	2	vertical sections, less than half bank height, 40 to 50 ft scour hole	
Site Relative to Bend	5	outside of a less than 90 degree bend	
Vegetation Cover	2	60%	
Tree Hazard	2	2 medium trees	
Soil Type (*2)	2	clays and silts	
Velocity (*2)	4	5.27 ft/s	
Human Usage	5	adjacent to road, next to a pump intake, daily use	
Erosion Hazard	48	Calculate Erosion Hazard	



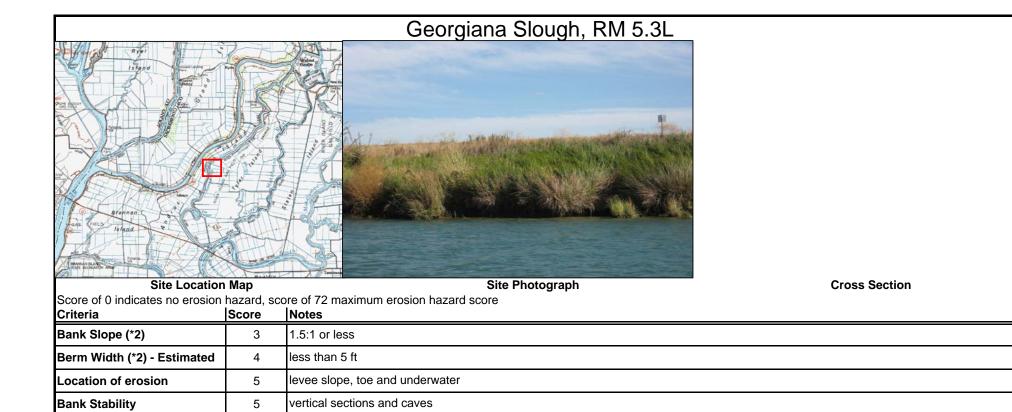
Criteria	Score	Notes
Bank Slope (*2)	4	less than 1:1
Berm Width (*2) - Estimated	0	30 ft
Location of erosion	3	toe
Bank Stability	5	vertical sections greater than half bank height and animal holes
Site Relative to Bend	3	outside of a gentle bend
Vegetation Cover	4	less than 20%
Tree Hazard	5	exposed roots, trees leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.01 ft/s
Human Usage	4	weekly, paths and adjacent to road
Erosion Hazard	48	Calculate Erosion Hazard



Cross Section Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria | Score | Notes

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1
Berm Width (*2) - Estimated	3	5 to 10 ft
Location of erosion	4	toe, lower bank, and berm
Bank Stability	3	cave, greater than 4 ft
Site Relative to Bend	1	straight
Vegetation Cover	2	60%
Tree Hazard	5	trees with some exposed roots and leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.97 ft/s
Human Usage	5	daily
Erosion Hazard	48	Calculate Erosion Hazard



Site Relative to Bend

Vegetation Cover

Tree Hazard

Soil Type (*2)

Velocity (*2)

Human Usage

Erosion Hazard

3

1

4

4

3

2

48

outside of a gentle bend

large trees with exposed roots

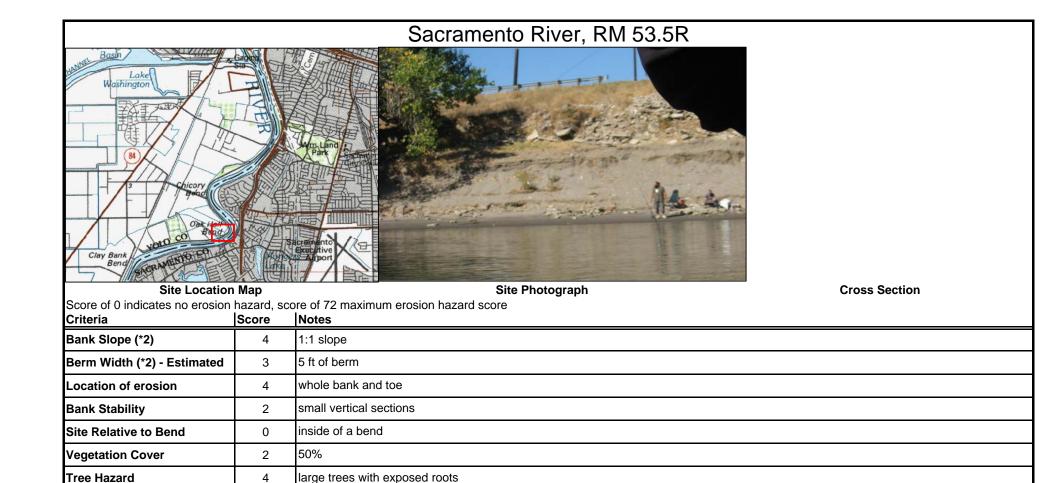
Calculate Erosion Hazard

70% cover

3.95 ft/s

seasonal

sands and silts



Soil Type (*2)

Velocity (*2)

Human Usage

Erosion Hazard

4

4

5

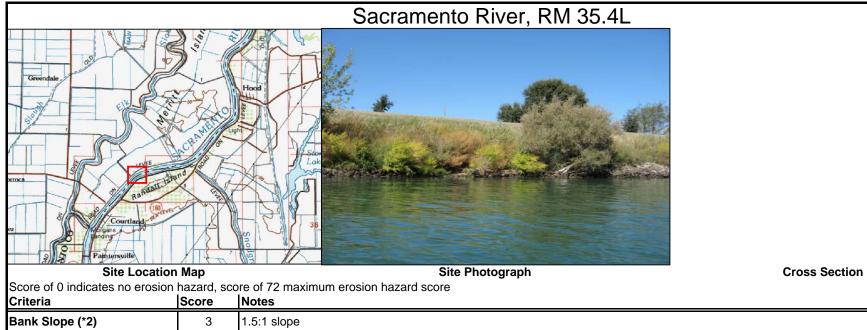
47

sand and silts

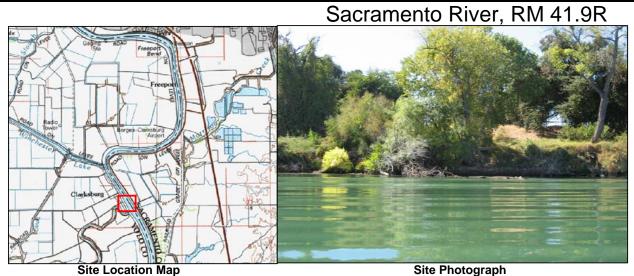
daily, parking area on levee, paths down, debris

Calculate Erosion Hazard

6.02 ft/s



Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	5	no berm
Location of erosion	4	toe
Bank Stability	5	vertical sections and caves
Site Relative to Bend	0	inside of a bend
Vegetation Cover	1	70%
Tree Hazard	1	young trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	6.52 ft/s
Human Usage	4	weekly
Erosion Hazard	47	Calculate Erosion Hazard



Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Score Notes Criteria Bank Slope (*2) 1.5:1 slope Berm Width (*2) - Estimated 5 no berm Location of erosion 2 lower bank caves from fallen trees **Bank Stability** 1 Site Relative to Bend straight 1 60 to 70% Vegetation Cover 1 5 large trees with exposed roots and leaning Tree Hazard Soil Type (*2) 4 sands and silts 5.08 ft/s Velocity (*2) 4 adjacent to road, pathway down, weekly Human Usage 4 46 Calculate Erosion Hazard **Erosion Hazard**

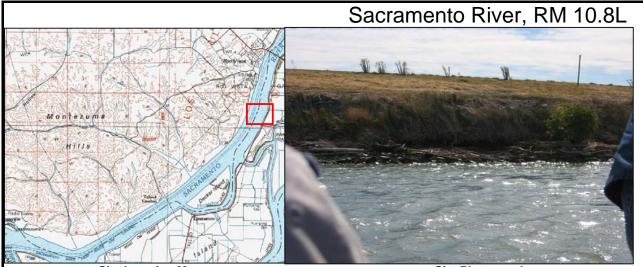


Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	5	no berm
Location of erosion	5	toe and underwater
Bank Stability	4	vertical sections greater than half bank height
Site Relative to Bend	3	outside of a greater than 90 degree bend
Vegetation Cover	2	50%
Tree Hazard	1	lone small tree
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	6.52 ft/s
Human Usage	1	steep sections, occassioanl usage
Erosion Hazard	46	Calculate Erosion Hazard



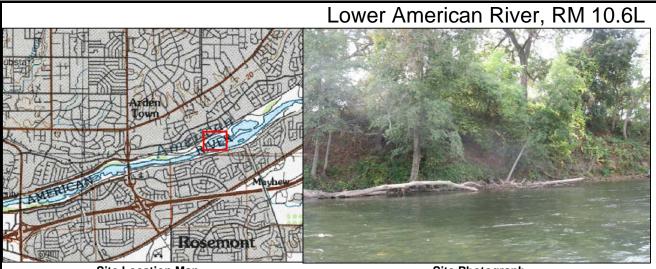
Site Location Map
Site Photograph
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 or less
Berm Width (*2) - Estimated	5	0 to 50 ft
Location of erosion	5	bank, toe, and underwater
Bank Stability	4	vertical sections, greater than half bank height
Site Relative to Bend	1	straight
Vegetation Cover	1	70 to 80%
Tree Hazard	4	trees with exposed roots
Soil Type (*2)	2	clays and silts
Velocity (*2)	4	5.13 ft/s
Human Usage	1	occassional
Erosion Hazard	46	Calculate Erosion Hazard



Site Location Map Site Photograph Cross Section
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

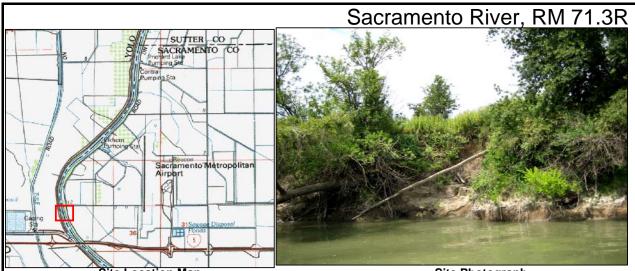
Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	5	no berm
Location of erosion	1	mid bank
Bank Stability	2	vertical sections, less than half bank height
Site Relative to Bend	1	straight
Vegetation Cover	3	varies, 30 to 60 %
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	7.05 ft/s
Human Usage	5	path and trash, daily
Erosion Hazard	46	Calculate Erosion Hazard



Site Location Map Site Photograph Cross Section

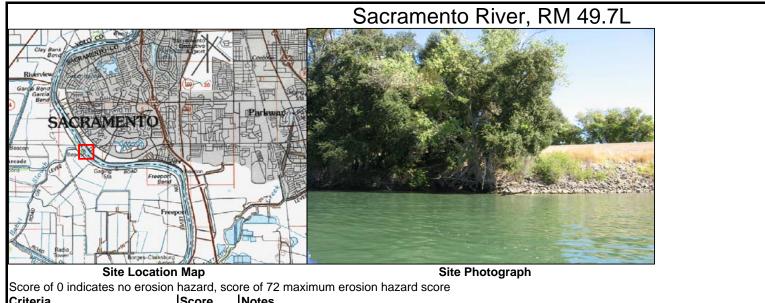
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	5	near vertical
Berm Width (*2) - Estimated	2	15 to 20 ft
Location of erosion	2	whole bank
Bank Stability	5	tree popouts and vertical sections
Site Relative to Bend	1	straight
Vegetation Cover	1	80%
Tree Hazard	5	large trees, exposed roots, and leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.94 ft/s
Human Usage	4	weekly, trails
Erosion Hazard	46	Calculate Erosion Hazard

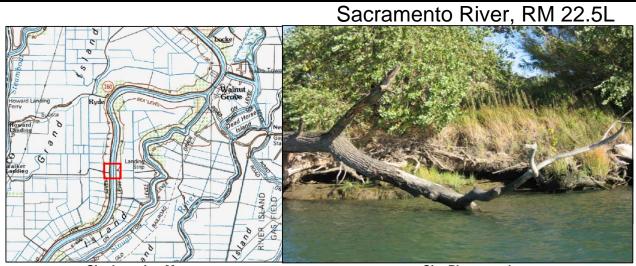


Site Location Map
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	1	25 ft
Location of erosion	4	berm and toe
Bank Stability	5	vertical sections, greater than half bank height and animal burrows
Site Relative to Bend	1	straight
Vegetation Cover	2	50%
Tree Hazard	5	trees with exposed roots and leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.05 ft/s
Human Usage	2	seasonal
Erosion Hazard	45	Calculate Erosion Hazard

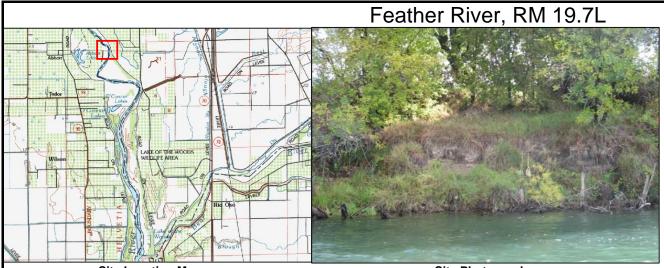


Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	2	10 ft of berm
Location of erosion	5	bank, toe, and underwater
Bank Stability	2	some small vertical sections
Site Relative to Bend	1	straight
Vegetation Cover	1	60%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	5	silts
Velocity (*2)	4	5.6 ft/s (UNET)
Human Usage	4	bike path on top, weekly
Erosion Hazard	45	Calculate Erosion Hazard



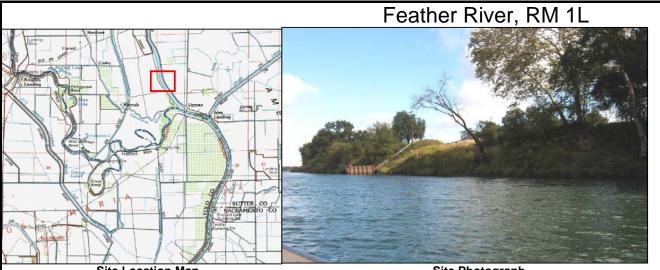
Site Location Map
Site Photograph
Cross Section
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score
Criteria
IScore | Notes

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	2	10 ft
Location of erosion	4	berm and toe
Bank Stability	5	caves, less than 4 ft, and vertical sections
Site Relative to Bend	1	straight
Vegetation Cover	0	90%
Tree Hazard	5	large leaning trees, exposed roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.54 ft/s
Human Usage	4	weekly, path and picnic table
Erosion Hazard	45	Calculate Erosion Hazard



Site Location Map Site Photograph Cross Section
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

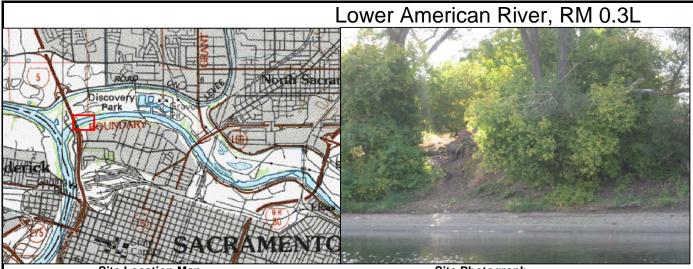
Criteria	,	Notes	
Bank Slope (*2)	4	1:1 slope or less	
Berm Width (*2) - Estimated	0	50 ft	
Location of erosion	4	whole bank and toe	
Bank Stability	5	caves, greater than 4 ft and vertical sections	
Site Relative to Bend	3	outside of a greater than 90 degree bend	
Vegetation Cover	3	40 to 50%	
Tree Hazard	5	arge trees with exposed roots and trees sliding down the bank	
Soil Type (*2)	4	ands and silts	
Velocity (*2)	4	5.34 ft/s	
Human Usage	1	rather steep, not too accessible, occassional	
Erosion Hazard	45	Calculate Erosion Hazard	



Site Location Map Site Photograph Cross Section

Criteria	Score	Notes
Score of 0 indicates no erosio	n hazard.	score of 72 maximum erosion hazard score

Cilicia	ocol e	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	2	15 ft
Location of erosion	5	toe and underwater
Bank Stability	2	vertical sections, less than half bank slope height
Site Relative to Bend	1	straight
Vegetation Cover	0	dense on bank, about 80%
Tree Hazard	4	trees with visible roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.46 ft/s
Human Usage	5	frequent, trails down to bank
Erosion Hazard	45	Calculate Erosion Hazard

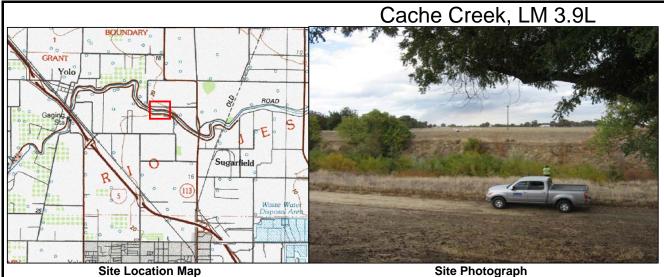


Site Location Map Site Photograph Cross Section

Criteria	Score	Notes
Score of U indicates no erosion	nazard, sco	ore of 72 maximum erosion hazard score

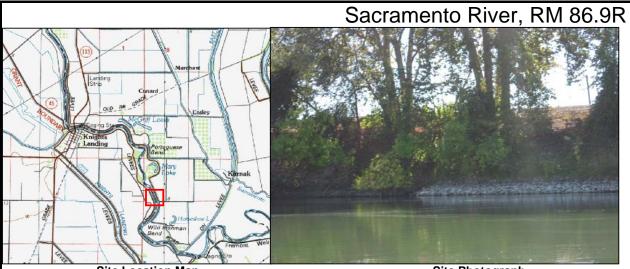
Officia	00010	Hotes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	3	6 to 30 ft
Location of erosion	4	bank and toe
Bank Stability	0	no stability issues
Site Relative to Bend	0	inside of a slight bend
Vegetation Cover	3	about 40 %
Tree Hazard	5	large trees with exposed roots, some leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.2 ft/s
Human Usage	5	Bike path on top os levee, trails down, trash present, daily use
Fracion Hazard	45	Coloulate Erecion Hazard

Erosion Hazard 45 Calculate Erosion Hazard



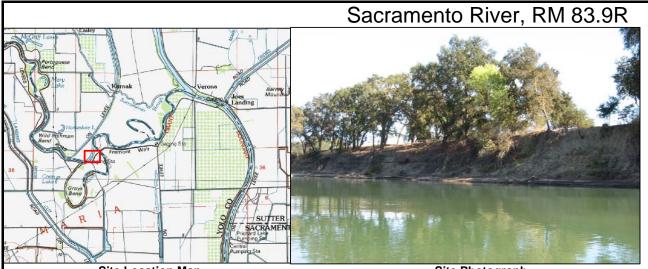
Site Location Map
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score
Criteria

Criteria	Score	Notes
Bank Slope (*2)	4	less than 1:1
Berm Width (*2) - Estimated	2	10 to 25 ft
Location of erosion	4	whole bank and toe
Bank Stability	5	vertical sections and caves
Site Relative to Bend	1	straight
Vegetation Cover	3	30%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	6 ft/s
Human Usage	0	rare
Erosion Hazard	45	Calculate Erosion Hazard



Cross Section Site Location Map Site Photograph Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria	Score	Notes	
Bank Slope (*2)	4	1.5:1 slope	
Berm Width (*2) - Estimated	1	25 30 ft	
Location of erosion	5	toe and underwater	
Bank Stability	2	vertical sections, less than half bank height	
Site Relative to Bend	1	straight	
Vegetation Cover	3	30%	
Tree Hazard	5	large trees, roots exposed and leaning	
Soil Type (*2)	4	sands and silts	
Velocity (*2)	3	3.18 ft/s	
Human Usage	4	weekly, trail to bank	
Erosion Hazard	44	Calculate Erosion Hazard	



Site Location Map
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Cross Section

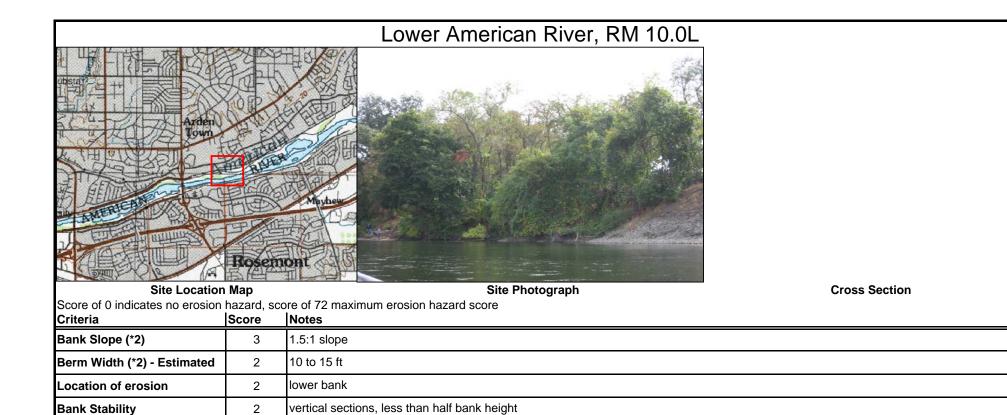
Criteria	Score	Notes
Bank Slope (*2)	5	vertical bank
Berm Width (*2) - Estimated	0	40 to 50 ft
Location of erosion	3	full bank
Bank Stability	5	beaver burrows and vertical bank
Site Relative to Bend	2	just downstream of a bend
Vegetation Cover	4	10%
Tree Hazard	5	large trees with exposed roots and leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	2	2.15 ft/s
Human Usage	3	monthly, trail but not easy to access
Erosion Hazard	44	Calculate Erosion Hazard



Site Location Map Site Photograph Cross Section
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	5	0 to 10 ft
Location of erosion	3	toe
Bank Stability	0	no vertical sections or caves
Site Relative to Bend	1	straight
Vegetation Cover	1	70%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.02 ft/s
Human Usage	5	daily
Frosion Hazard	44	Calculate Erosion Hazard

Erosion Hazard 44 Calculate Erosion Hazar



straight

8.74 ft/s

sands and silts

large trees, some exposed roots, some leaning

daily, people on banks, lots of trash and paths

Calculate Erosion Hazard

60%

1

1

5

4

5

5

44

Site Relative to Bend

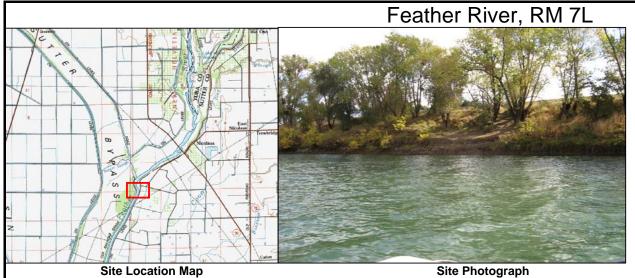
Vegetation Cover

Tree Hazard
Soil Type (*2)

Velocity (*2)

Human Usage

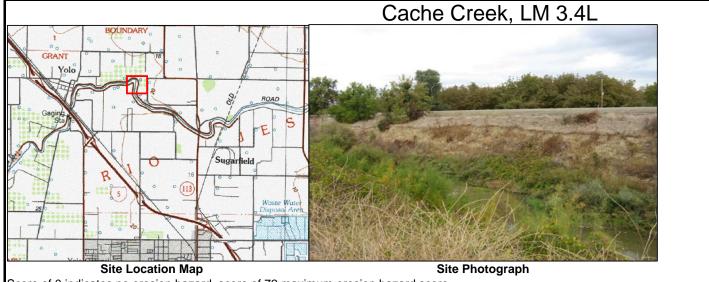
Erosion Hazard



Site Location Map

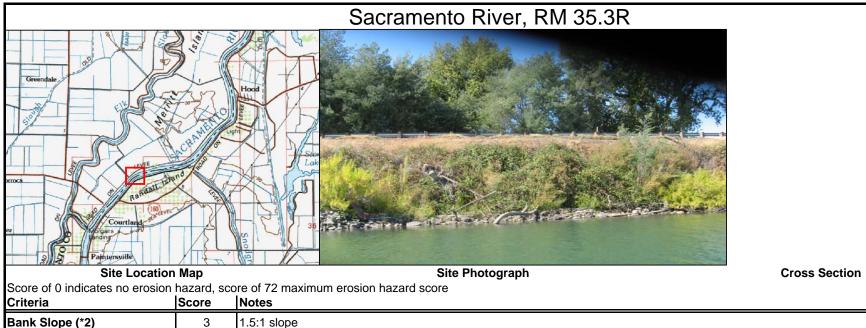
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	1	2.5:1 on bank
Berm Width (*2) - Estimated	3	about 5 ft
Location of erosion	3	toe
Bank Stability	2	vertical sections, less than half bank slope
Site Relative to Bend	3	outside of a greater than 90 degree bend
Vegetation Cover	2	40 to 50 %
Tree Hazard	3	large trees
Soil Type (*2)	4	sands and silts with cobbles underneath
Velocity (*2)	5	9.97 ft/s
Human Usage	5	multiple paths down the bank and trash
Erosion Hazard	44	Calculate Erosion Hazard



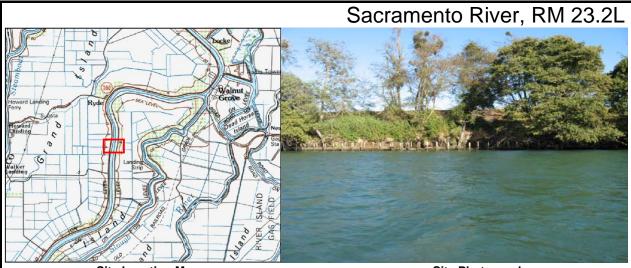
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Notes Criteria Score Bank Slope (*2) 1:1 slope 15 to 30 feet Berm Width (*2) - Estimated 2 Location of erosion 4 toe and upper bank vertical sections, less than half slope height, and caves **Bank Stability** 5 Site Relative to Bend outside of a less than 90 degree bend 5 40% Vegetation Cover 2 0 Tree Hazard no trees Soil Type (*2) 4 sands and silts 6.5 ft/s Velocity (*2) 4 Human Usage adjacent to private property, rare usage 0 44 Calculate Erosion Hazard **Erosion Hazard**



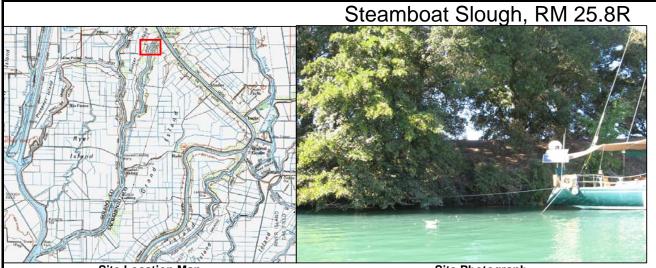
Bank Slope (*2) 1.5:1 slope Berm Width (*2) - Estimated 5 no berm Location of erosion 2 full bnak **Bank Stability** 0 no vertical sections or caves Site Relative to Bend outside of a greater than 90 degree bend 3 60% Vegetation Cover 1 0 no trees Tree Hazard Soil Type (*2) 4 sands and silts Velocity (*2) 4 5.89 ft/s Human Usage 5 daily

Erosion Hazard 43 Calculate Erosion Hazard



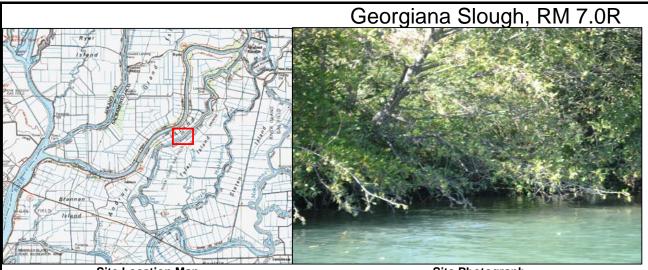
Site Location Map Site Photograph Cross Section
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria		Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	2	10 ft
Location of erosion	2	berm
Bank Stability	5	short vertical sections and caves
Site Relative to Bend	1	straight
Vegetation Cover	1	60 to 70 %
Tree Hazard	4	medium trees, exposed roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.16 ft/s
Human Usage	4	weekly, path down
Erosion Hazard	43	Calculate Erosion Hazard



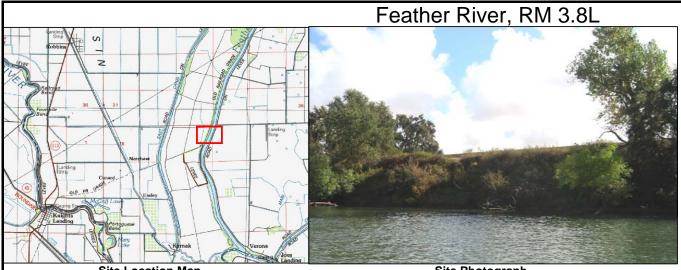
Site Location Map
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	5	no berm
Location of erosion	4	toe and lower bank
Bank Stability	2	vertical sections
Site Relative to Bend	3	outside of slight bend
Vegetation Cover	1	60 - 70%
Tree Hazard	4	large trees, exposed roots
Soil Type (*2)	2	clays and silts
Velocity (*2)	3	4.87 ft/s
Human Usage	3	monthly
Frosion Hazard	43	Calculate Frosion Hazard



Site Location Map
Site Photograph
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

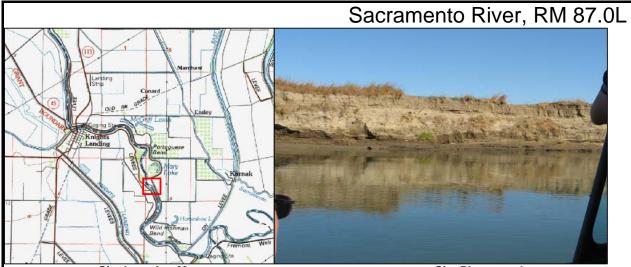
Criteria	Score	Notes
Bank Slope (*2)	4	1:1 or less
Berm Width (*2) - Estimated	3	5 ft
Location of erosion	4	toe and bank
Bank Stability	2	vertical sections, less than half bank height
Site Relative to Bend	1	straight
Vegetation Cover	2	60%
Tree Hazard	4	large trees, exposed roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.88 ft/s
Human Usage	2	seasonal
Erosion Hazard	43	Calculate Erosion Hazard



Site Photograph

Site Location Map
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score
Criteria | Score | Notes

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	1	25 to 30 ft
Location of erosion	3	whole bank
Bank Stability	3	some holes from trees falling
Site Relative to Bend	1	straight
Vegetation Cover	1	70 to 80%
Tree Hazard	5	large trees with visible roots, some leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	7.08 ft/s
Human Usage	4	adjacent to road, weekly use
Erosion Hazard	43	Calculate Erosion Hazard

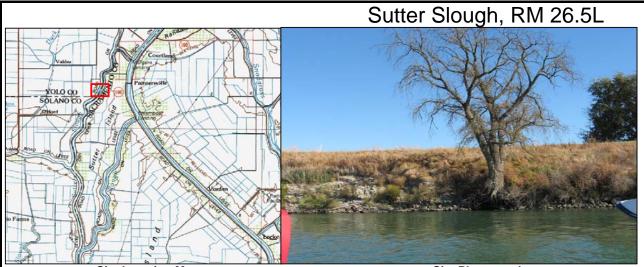


Site Location Map
Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	5	near vertical
Berm Width (*2) - Estimated	0	40 to 50 ft
Location of erosion	4	full bank and toe
Bank Stability	5	vertical sections greater than half bank height, and animal holes
Site Relative to Bend	0	inside of a bend
Vegetation Cover	4	10%
Tree Hazard	4	trees with exposed roots, one freshly fallen
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.18 ft/s
Human Usage	1	occassional
Erecien Horord	42	Coloulate Erecian Hozard

Cross Section

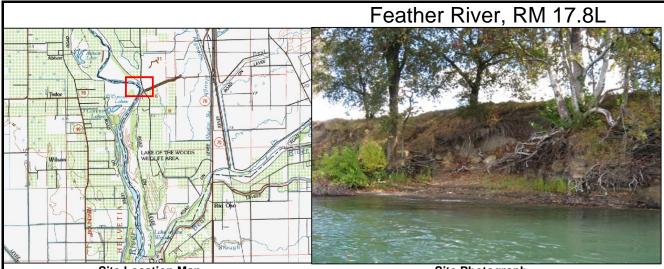
Erosion Hazard 42 Calculate Erosion Hazard



Site Location Map
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	5	no berm
Location of erosion	3	toe
Bank Stability	0	no vertical sections or caves
Site Relative to Bend	1	straight
Vegetation Cover	2	50%
Tree Hazard	5	leaning trees with exposed roots
Soil Type (*2)	2	clays and silts
Velocity (*2)	4	5.62 ft/s
Human Usage	3	monthly
Erosion Hazard	42	Calculate Erosion Hazard



Site Location Map Site Photograph Cross Section

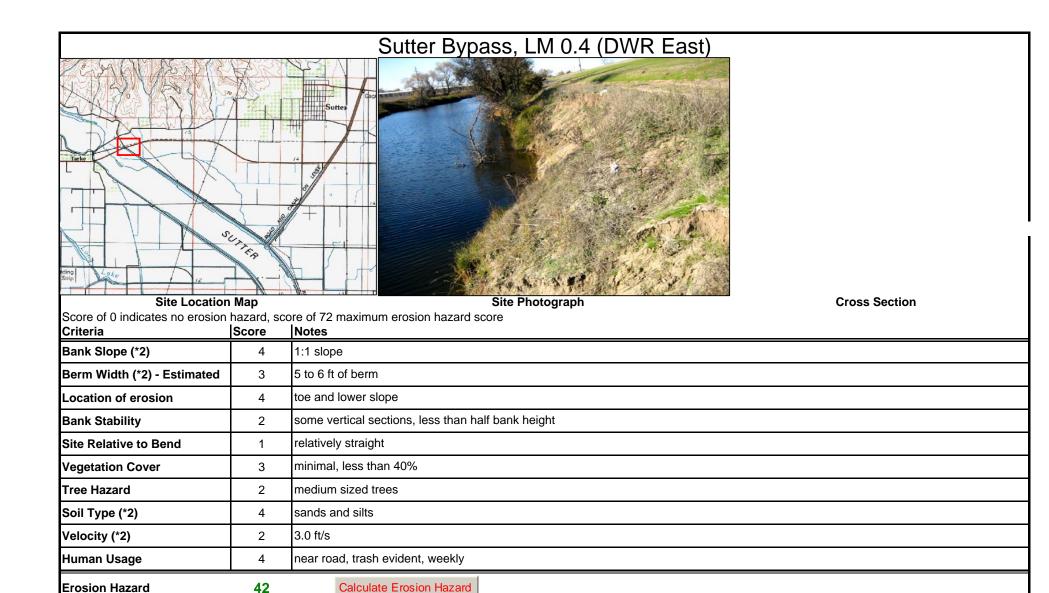
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

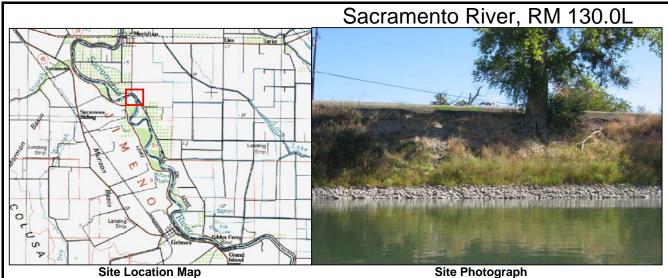
Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	0	50 ft
Location of erosion	3	whole bank
Bank Stability	4	vertical sections for whole bank height
Site Relative to Bend	5	outside of a slightly less than 90 degree bend
Vegetation Cover	2	about 40 to 50%
Tree Hazard	5	large trees, roots exposed, and leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.63 ft/s
Human Usage	1	Dumping spot but not much usage
Erosion Hazard	42	Calculate Erosion Hazard



Notes Criteria Score Bank Slope (*2) near vertical Berm Width (*2) - Estimated 5 no berm toe and lower slope Location of erosion 4 **Bank Stability** 2 shallow vertical sections Site Relative to Bend straight 1 Vegetation Cover minimal 4 0 no trees Tree Hazard Soil Type (*2) 4 sands and silts Velocity (*2) 0 water does not reach the bank Human Usage monthly usage 3

Erosion Hazard 42 Calculate Erosion Hazard





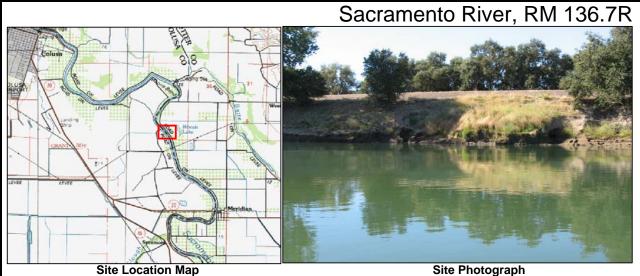
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria | Score | Notes

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	5	0 to 60 ft
Location of erosion	4	berm slope and toe
Bank Stability	0	no vertical sections or caves
Site Relative to Bend	5	outside of a tight bend
Vegetation Cover	2	50%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	2	clays and silts
Velocity (*2)	2	2.86 ft/s
Human Usage	2	seasonal
F	44	Orbital Construction II annual

Cross Section

41 **Erosion Hazard** Calculate Erosion Hazard



Calculate Erosion Hazard

Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

41

Erosion Hazard

Score Notes Criteria Bank Slope (*2) 1.5:1 slope 30 ft Berm Width (*2) - Estimated 0 Location of erosion 4 bank and toe vertical sections, greater than half bank height and caves **Bank Stability** 5 Site Relative to Bend 2 just downstream from a bend 20% Vegetation Cover 4 trees with exposed roots and leaning Tree Hazard 5 Soil Type (*2) 2 clays and silts Velocity (*2) 4 5.17 ft/s Human Usage 3 monthly







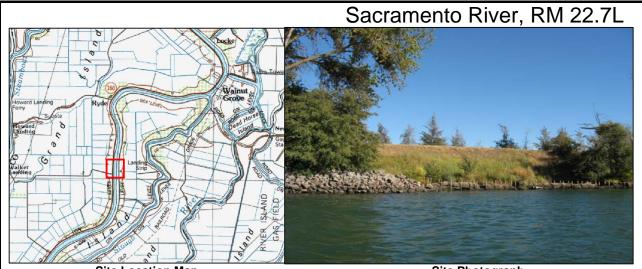
Site Location Map

Site Photograph

Cross Section

Score of 0 indicates no erosion	hazard, sco	ore of 72 maximum erosion hazard score
Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope

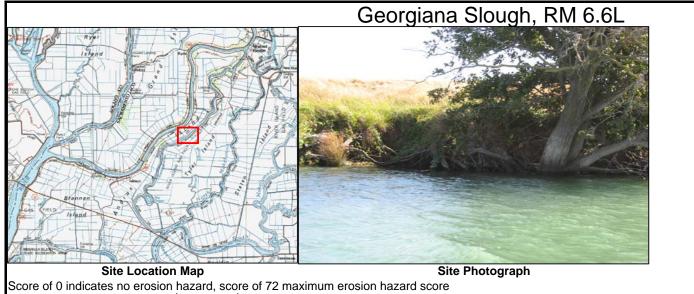
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	0	30 ft
Location of erosion	4	bank and toe
Bank Stability	4	vertical sections, greater than half bank height
Site Relative to Bend	1	straight
Vegetation Cover	4	10%
Tree Hazard	5	large trees with exposed roots, some leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.3 ft/s
Human Usage	1	occassional
Erosion Hazard	41	Calculate Erosion Hazard



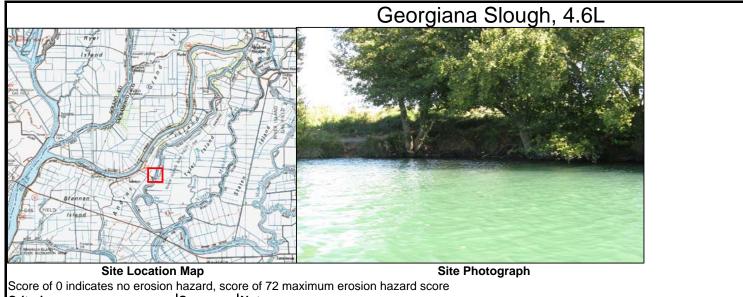
Site Location Map
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

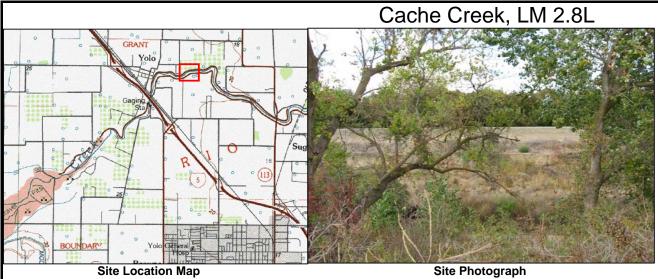
Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	5	no berm
Location of erosion	2	berm
Bank Stability	4	vertical sections greater than half bank height
Site Relative to Bend	1	straight
Vegetation Cover	0	90%
Tree Hazard	3	large trees, one already fallen
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.82 ft/s
Human Usage	1	occassional
Erosion Hazard	41	Calculate Erosion Hazard



Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	2	10 ft
Location of erosion	2	lower bank
Bank Stability	5	caves greater than 4 ft and vertical sections
Site Relative to Bend	1	straight
Vegetation Cover	4	70%
Tree Hazard	1	young trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.77 ft/s
Human Usage	2	seasonal
Frosion Hazard	<u>4</u> 1	Calculate Frosion Hazard

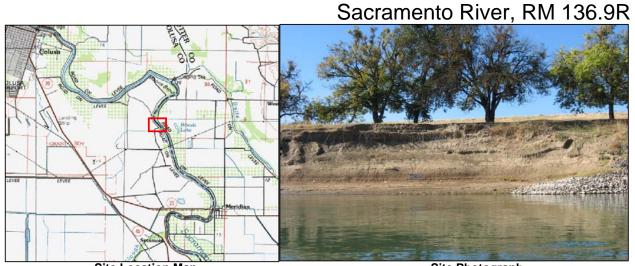


Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	4	less than 5 ft
Location of erosion	3	toe
Bank Stability	4	cvertical sections
Site Relative to Bend	1	straight
Vegetation Cover	0	85%
Tree Hazard	5	trees with exposed roots and leaning
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.94 ft/s
Human Usage	0	too steep for access
Erosion Hazard	41	Calculate Erosion Hazard



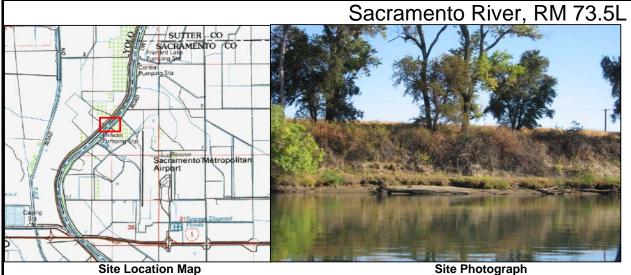
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 or less
Berm Width (*2) - Estimated	2	15 to 30 ft
Location of erosion	4	toe and upper bank slope
Bank Stability	4	vertical sections greater than half slope height
Site Relative to Bend	3	outside of gentle bend
Vegetation Cover	2	about 50%
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.98 ft/s
Human Usage	0	private property adjacent, rare usage
Erosion Hazard	41	Calculate Erosion Hazard



Site Location Map
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Notes Criteria Score Bank Slope (*2) 1:1 slope 30 ft Berm Width (*2) - Estimated 0 Location of erosion 4 whole bank and toe vertical sections less than half bank height and caves **Bank Stability** 5 Site Relative to Bend 2 just downstream from a bend 20% Vegetation Cover 4 large trees with exposed roots Tree Hazard 4 Soil Type (*2) 2 clays and silts Velocity (*2) 3 4.66 ft/s Human Usage 3 monthly **Erosion Hazard** 40 Calculate Erosion Hazard



Site Location Map
Site Photograph
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Notes Criteria Score Bank Slope (*2) 1:1 slope 30 to 50 ft Berm Width (*2) - Estimated 0 Location of erosion 2 full bank vertical sections, greater than half bnak height and caves **Bank Stability** 5 straight Site Relative to Bend 1 30% Vegetation Cover 3 3 large trees Tree Hazard Soil Type (*2) 2 clays and silts Velocity (*2) 3 4.74 ft/s Human Usage 4 weekly

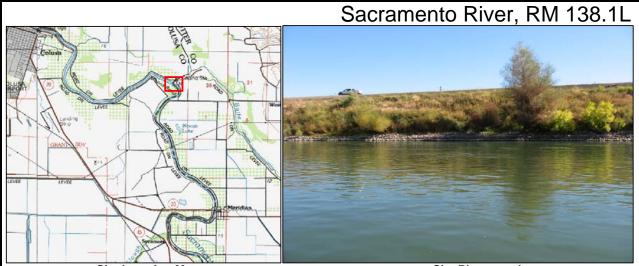
Cross Section

Erosion Hazard 36 Calculate Erosion Hazard



Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	5	0 to 15 ft
Location of erosion	3	toe
Bank Stability	1	caves from tree popouts
Site Relative to Bend	1	relatively straight
Vegetation Cover	1	70 to 80%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.5 ft/s (UNET)
Human Usage	2	seasonal
Erosion Hazard	40	Calculate Erosion Hazard



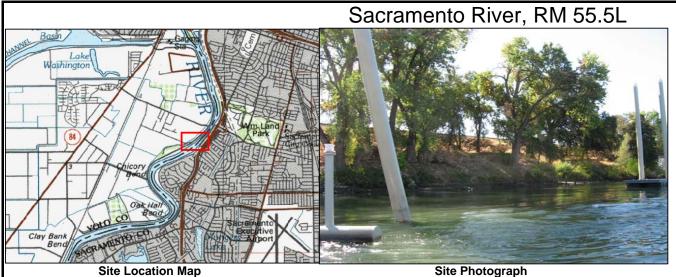
Site Location Map
Site Photograph
Cross Section
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	5	no berm
Location of erosion	4	toe and lower bank
Bank Stability	2	vertical section, less than half bank height
Site Relative to Bend	3	outside of gentle bend
Vegetation Cover	1	75%
Tree Hazard	0	no trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	2	2.58 ft/s
Human Usage	3	monthly
Erosion Hazard	39	Calculate Erosion Hazard



Site Location Map
Site Photograph
Cross Section
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

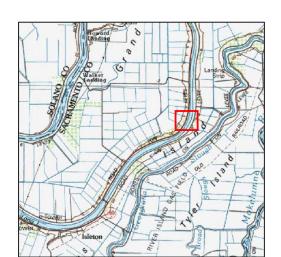
Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	3	8 to 10 ft
Location of erosion	2	full bank
Bank Stability	2	vertical sections, less than half bank height
Site Relative to Bend	0	inside of a bend
Vegetation Cover	3	30%
Tree Hazard	3	large trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.41 ft/s
Human Usage	5	campground adjacent
Erosion Hazard	39	Calculate Erosion Hazard



Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria | Score | Notes

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	2	15 ft
Location of erosion	2	levee slope
Bank Stability	2	small vertical section
Site Relative to Bend	1	relatively straight
Vegetation Cover	2	40%
Tree Hazard	3	large trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.84 ft/s
Human Usage	5	paths and human debris, adjacent to hotel
Erosion Hazard	39	Calculate Erosion Hazard

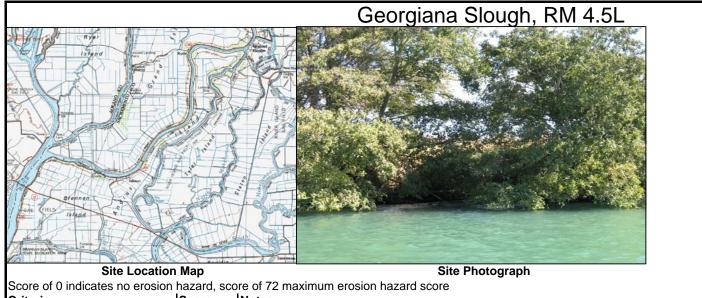


Sacramento River, RM 21.5L

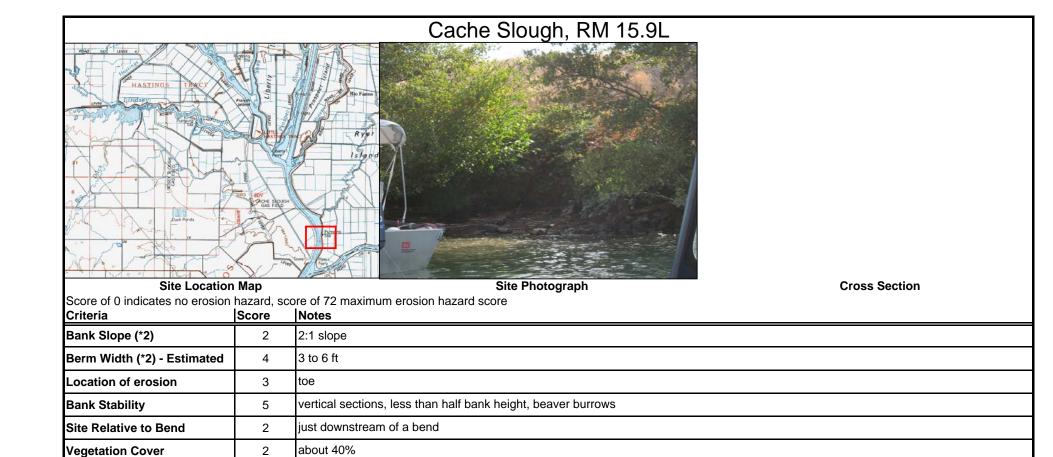


Site Location Map Site Photograph

One Location	•	Olio i notograpii	0.000 000.001
Score of 0 indicates no erosion Criteria	hazard, so Score	core of 72 maximum erosion hazard score Notes	
Bank Slope (*2)	4	1.5:1 slope	
Berm Width (*2) - Estimated	3	5 ft of berm	
Location of erosion	2	mid and lower bank	
Bank Stability	0	no stabillity issues	
Site Relative to Bend	3	outside of a slight bend	
Vegetation Cover	0	90%	
Tree Hazard	5	large leaning trees, exposed roots	
Soil Type (*2)	4	sands and silts	
Velocity (*2)	3	4.3 ft/s	
Human Usage	1	occassional, lots of veg	
Erosion Hazard	39	Calculate Erosion Hazard	



Criteria	Score	Notes	
Bank Slope (*2)	3	1.5:1 slope	
Berm Width (*2) - Estimated	4	less than 5 ft	
Location of erosion	3	toe	
Bank Stability	2	some vertical sections, less than half bank height	
Site Relative to Bend	1	straight	
Vegetation Cover	0	dense, 95%	
Tree Hazard	5	treees with exposed roots and leaning	
Soil Type (*2)	4	sands and silts	
Velocity (*2)	3	4.01 ft/s	
Human Usage	0	too dense with vegetation for human use	
Erosion Hazard	39	Calculate Erosion Hazard	



0

1

5

3

39

no trees

10.9 ft/s

monthly

Calculate Erosion Hazard

clays

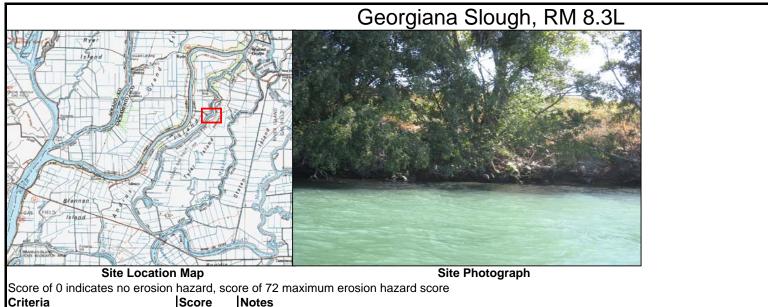
Tree Hazard

Soil Type (*2)

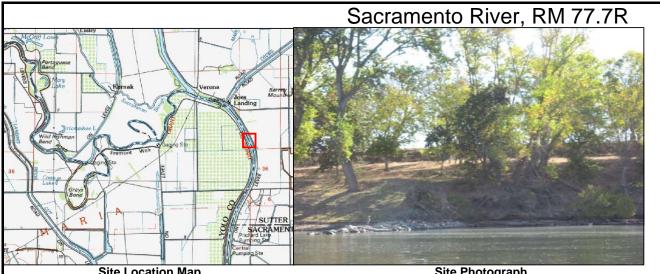
Velocity (*2)

Human Usage

Erosion Hazard



Criteria	Score	Notes	
Bank Slope (*2)	3	1.5:1 slope	
Berm Width (*2) - Estimated	2	15 ft	
Location of erosion	2	middle and lower bank	
Bank Stability	4	vertical sections, greater than half bank height	
Site Relative to Bend	4	outside of a 90 degree bend	
Vegetation Cover	1	80%	
Tree Hazard	0	no trees	
Soil Type (*2)	4	sands and silts	
Velocity (*2)	3	3.68 ft/s	
Human Usage	4	adjacent to public road, debris, weekly	
Erosion Hazard	39	Calculate Erosion Hazard	



Site Location Map Site Photograph Cross Section

Oultraile	lo	INI-1	
Score of 0 indicates no erosion	hazard, sc	core of 72 maximum	erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	1	25 to 30 ft
Location of erosion	4	full bank and toe
Bank Stability	5	caves and some vertical sections
Site Relative to Bend	0	inside of bend
Vegetation Cover	2	30 to 40%
Tree Hazard	5	large trees with exposed roots and leaning
Soil Type (*2)	2	clays and silts
Velocity (*2)	5	5.08 ft/s plus eddy off adjacent rock
Human Usage	1	occassional
Erosion Hazard	39	Calculate Erosion Hazard



Sacramento River, RM 116.5L



Site Location Map
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Site Photograph Cross Section

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	2	10 ft
Location of erosion	4	berm and toe
Bank Stability	5	vertical sections, full bank height, lots of beaver holes
Site Relative to Bend	1	straight
Vegetation Cover	2	60%
Tree Hazard	0	no trees
Soil Type (*2)	4	sand and silts
Velocity (*2)	3	4.0 ft/s
Human Usage	2	seasonal
Erosion Hazard	38	Calculate Erosion Hazard



Site Location Map
Site Photograph
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	2	15 ft
Location of erosion	4	toe and bank
Bank Stability	2	vertical sections, less than half bank height
Site Relative to Bend	5	outside of a tight bend
Vegetation Cover	2	60%
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	3.37 ft/s
Human Usage	1	daily, stairs and path down
Erosion Hazard	38	Calculate Erosion Hazard

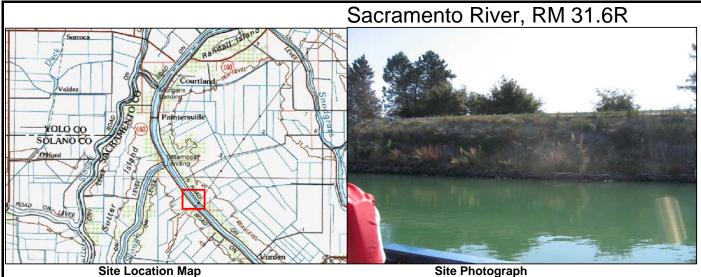


Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	0	30 to 40 ft
Location of erosion	4	lower bank and toe
Bank Stability	2	short vertical sections
Site Relative to Bend	1	straight
Vegetation Cover	2	60%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.88 ft/s
Human Usage	5	daily
Erosion Hazard	38	Calculate Erosion Hazard



Site Location Map
Site Photograph
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score
Scritoria | Score | Notes

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	4	less than 5 ft
Location of erosion	4	lower bank and toe
Bank Stability	2	vertical sections, less than half bank slope
Site Relative to Bend	1	straight
Vegetation Cover	2	40-50%
Tree Hazard	0	no trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	4	5.46 ft/s
Human Usage	3	monthly
Erosion Hazard	38	Calculate Erosion Hazard



Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

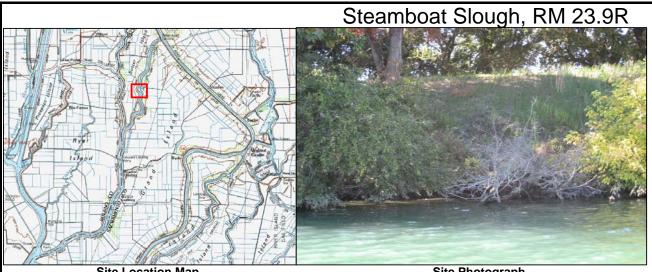
ograph Cross Section

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	5	no berm
Location of erosion	1	levee slope
Bank Stability	0	no vertical sections or caves
Site Relative to Bend	1	straight
Vegetation Cover	1	70%
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	4	5.23 ft/s
Human Usage	3	adjacent to road but no paths, monthly
Erosion Hazard	38	Calculate Erosion Hazard



Cross Section Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

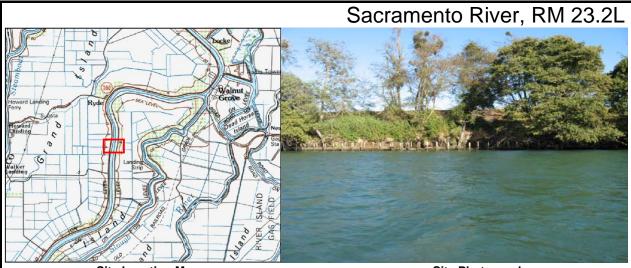
Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	3	5 ft
Location of erosion	4	lower bank and toe
Bank Stability	1	caves from tree popouts
Site Relative to Bend	0	inside of a bend
Vegetation Cover	3	40%
Tree Hazard	5	large trees, exposed roots and leaning
Soil Type (*2)	2	clays and silts
Velocity (*2)	3	4.76 ft/s
Human Usage	3	monthly
Erosion Hazard	38	Calculate Erosion Hazard



Site Location Map
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

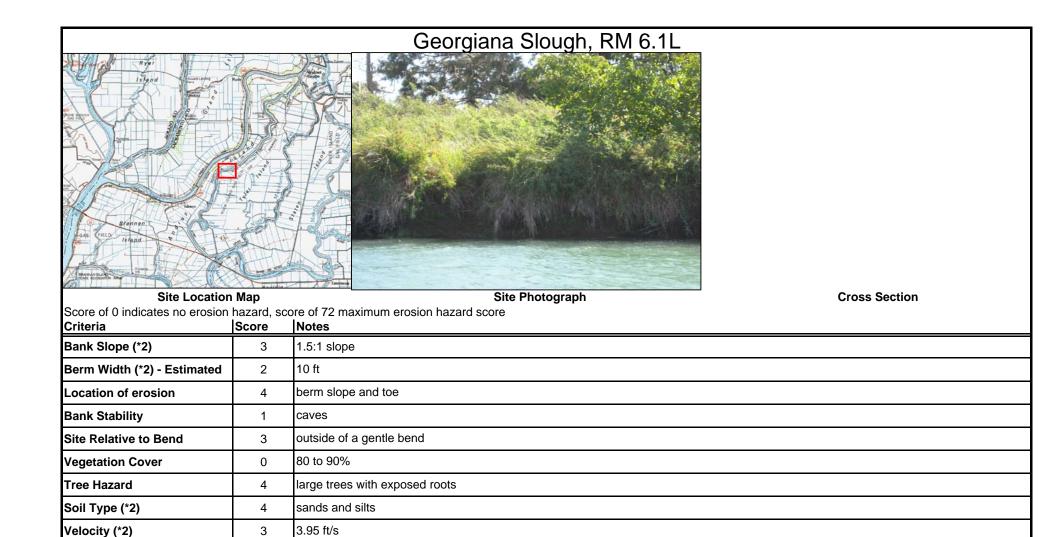
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	3	about 5 ft
Location of erosion	2	lower bank
Bank Stability	0	no vertical sections or caves
Site Relative to Bend	4	outside of a 90 degree bend
Vegetation Cover	0	90%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	2	clays and silts
Velocity (*2)	3	4.45 ft/s
Human Usage	4	weekly
Erosion Hazard	38	Calculate Erosion Hazard



Site Location Map Site Photograph Cross Section
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria		Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	2	10 ft
Location of erosion	2	berm
Bank Stability	5	short vertical sections and caves
Site Relative to Bend	1	straight
Vegetation Cover	1	60 to 70 %
Tree Hazard	4	medium trees, exposed roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.16 ft/s
Human Usage	4	weekly, path down
Erosion Hazard	43	Calculate Erosion Hazard



3

2

38

seasonal

Calculate Erosion Hazard

Human Usage

Erosion Hazard







Site Location Map

Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope with some vertical sections
Berm Width (*2) - Estimated	1	25 to 30 ft
Location of erosion	3	whole bank
Bank Stability	2	vertical sections, less than half bank height
Site Relative to Bend	1	straight
Vegetation Cover	3	30 to 40 % cover
Tree Hazard	0	no trees in the erosion area
Soil Type (*2)	4	sands and silts
Velocity (*2)	5	10.6 ft/s
Human Usage	5	close to road, human debris evident
Erosion Hazard	38	Calculate Erosion Hazard

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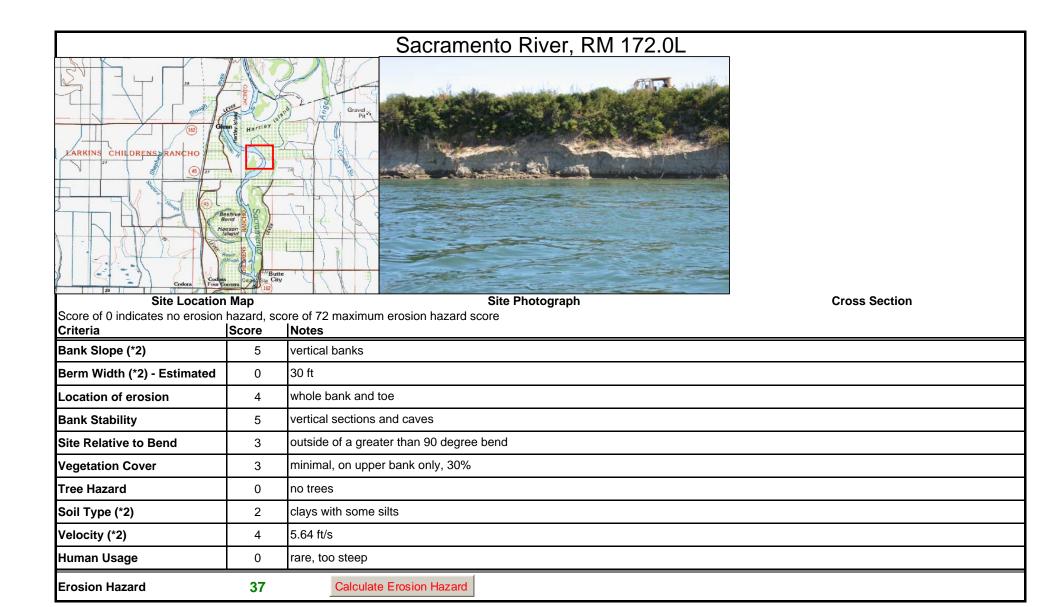
Bear River, RM 0.8L

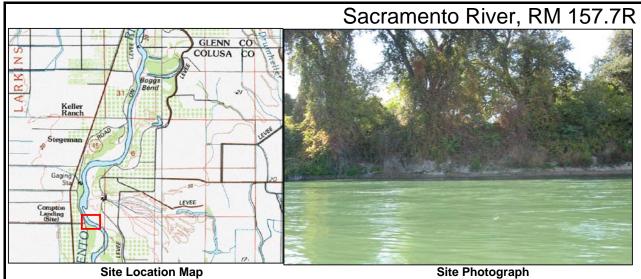


Site Location Map

Site Photograph

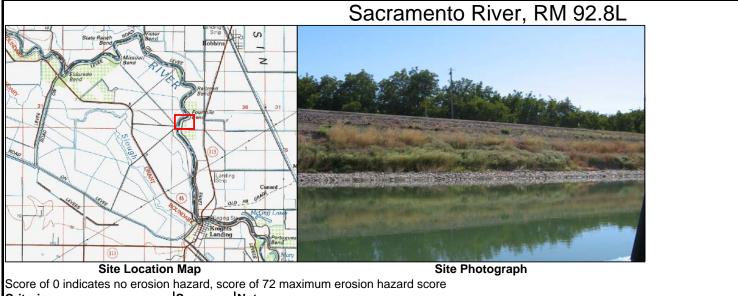
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score		
Criteria	Score	Notes
Bank Slope (*2)	5	Vertical slope
Berm Width (*2) - Estimated	2	15 to 30 ft of berm
Location of erosion	5	Whole Bank
Bank Stability	5	vertical sections and beaver burrows
Site Relative to Bend	3	Outside of a bend, greater than 90 degrees
Vegetation Cover	2	About 60% cover
Tree Hazard	0	no trees
Soil Type (*2)	2	Clays and Silts
Velocity (*2)	2	2.84 ft/s
Human Usage	1	Occassional usage
Erosion Hazard	38	Calculate Erosion Hazard



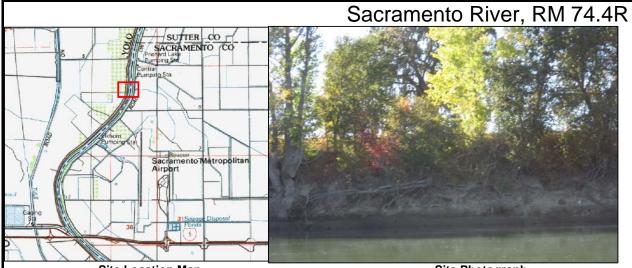


Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	4	less than 1:1 slope, near vertical
Berm Width (*2) - Estimated	0	50 ft
Location of erosion	4	full bank and toe
Bank Stability	5	vertical sections and some animal holes
Site Relative to Bend	3	outside of a gentle bend
Vegetation Cover	1	70 to 80%
Tree Hazard	4	large trees with exposed roots
Soil Type (*2)	2	clays and silts
Velocity (*2)	4	5.69 ft/s
Human Usage	0	rare
Erosion Hazard	37	Calculate Erosion Hazard



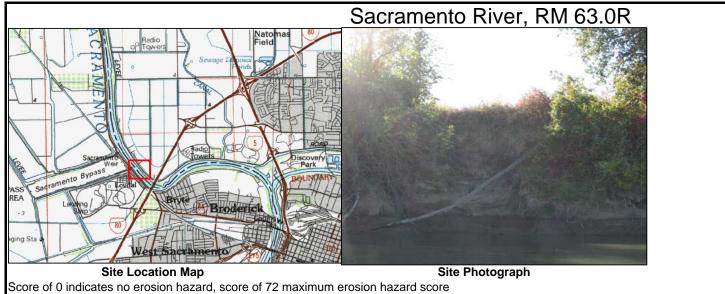
Score Notes Criteria Bank Slope (*2) 2 2:1 slope Berm Width (*2) - Estimated 0 to 15 ft 5 Location of erosion 3 toe **Bank Stability** 0 short vertical sections Site Relative to Bend 2 just downstream of a bend 60% Vegetation Cover 1 0 Tree Hazard no trees Soil Type (*2) 4 sands and silts Velocity (*2) 3.32 ft/s 3 Human Usage 3 monthly **Erosion Hazard** 37 Calculate Erosion Hazard



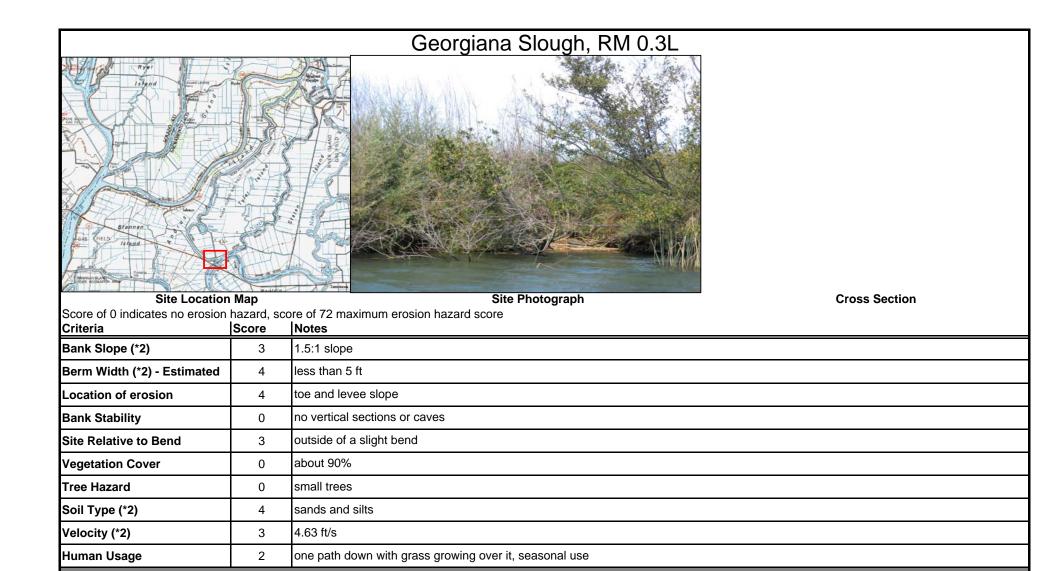
Site Location Map Site Photograph Cross Section

Criteria	Score	notes
Bank Slope (*2)	3	1.5:1 or less
Berm Width (*2) - Estimated	1	25 to 50 ft
Location of erosion	4	toe and bank
Bank Stability	3	caves greater than 4 ft
Site Relative to Bend	0	inside of a bend
Vegetation Cover	4	less than 20%
Tree Hazard	5	trees with exposed roots and leaning
Soil Type (*2)	2	clays and silts
Velocity (*2)	4	5.74 ft/s
Human Usage	1	occassional

Erosion Hazard 37 Calculate Erosion Hazard



Criteria	Score	tes	
Bank Slope (*2)	3	1.5:1 slope	
Berm Width (*2) - Estimated	2	less than 20 ft	
Location of erosion	3	toe	
Bank Stability	2	vertical sections, less than half bank height	
Site Relative to Bend	1	traight	
Vegetation Cover	3	30%	
Tree Hazard	5	arge trees, exposed roots, some leaning	
Soil Type (*2)	2	lays and silts	
Velocity (*2)	2	2.87 ft/s	
Human Usage	5	stairs down to bank, daily	
Erosion Hazard	37	Calculate Erosion Hazard	



37

Erosion Hazard

Calculate Erosion Hazard



Erosion Hazard

Sacramento River, RM 103.4L



Site Location Map

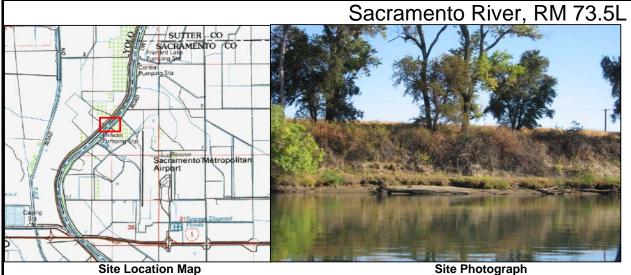
36

Site Photograph

Cross Section

Criteria	Score	re of 72 maximum erosion hazard score Notes		
Bank Slope (*2)	4	1:1 to 1.5:1 slopes		
Berm Width (*2) - Estimated	1	25 ft		
Location of erosion	4	full bnak and toe		
Bank Stability	2	vertical sections, full bank height		
Site Relative to Bend	0	inside of a bend		
Vegetation Cover	3	25%		
Tree Hazard	0	no trees		
Soil Type (*2)	4	sands and silts		
Velocity (*2)	4	3.52 ft/s, plus eddy		
Human Usage	1	occassional		

Calculate Erosion Hazard

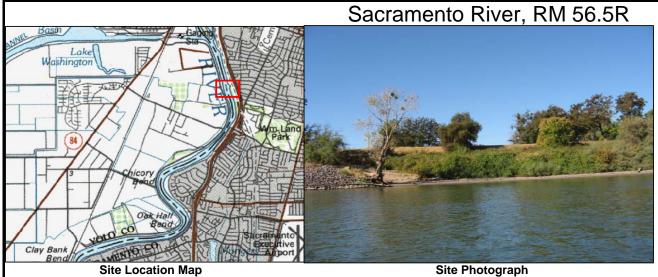


Site Location Map
Site Photograph
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Notes Criteria Score Bank Slope (*2) 1:1 slope 30 to 50 ft Berm Width (*2) - Estimated 0 Location of erosion 2 full bank vertical sections, greater than half bnak height and caves Bank Stability 5 straight Site Relative to Bend 1 30% Vegetation Cover 3 3 large trees Tree Hazard Soil Type (*2) 2 clays and silts Velocity (*2) 3 4.74 ft/s Human Usage 4 weekly

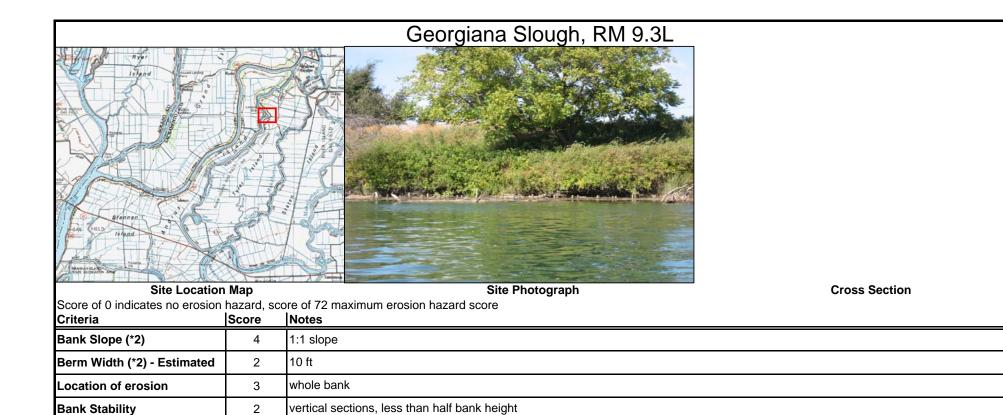
Cross Section

Erosion Hazard 36 Calculate Erosion Hazard



Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Notes Criteria Score Bank Slope (*2) 1.5:1 slope 25 ft Berm Width (*2) - Estimated 1 Location of erosion 2 berm Bank Stability 5 caves and vertical sections Site Relative to Bend straight 1 80% Vegetation Cover 0 4 large trees with exposed roots Tree Hazard Soil Type (*2) 2 clays and silts 5.11 ft/s Velocity (*2) 4 Human Usage weekly, rope swing 4 **Erosion Hazard** 36 Calculate Erosion Hazard



outside of a sharp bend

thick vegetation, seasonal

Calculate Erosion Hazard

5

0

4

1

2

36

85%

1.07 ft/s

medium trees

silts and sands

Site Relative to Bend

Vegetation Cover

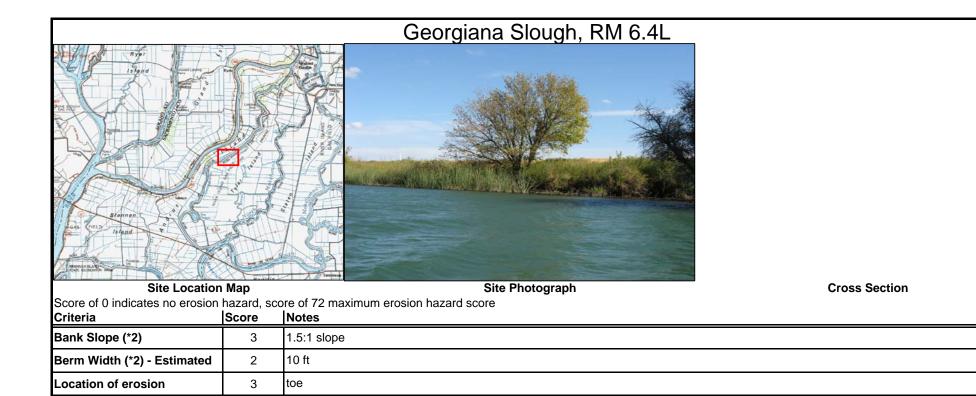
Tree Hazard

Soil Type (*2)

Velocity (*2)

Human Usage

Erosion Hazard



caves, small

sands and silts

large trees and exposed roots

Calculate Erosion Hazard

straight

3.78 ft/s

seasonal

70%

1

1

1

4

3

2

36

Bank Stability

Tree Hazard Soil Type (*2)

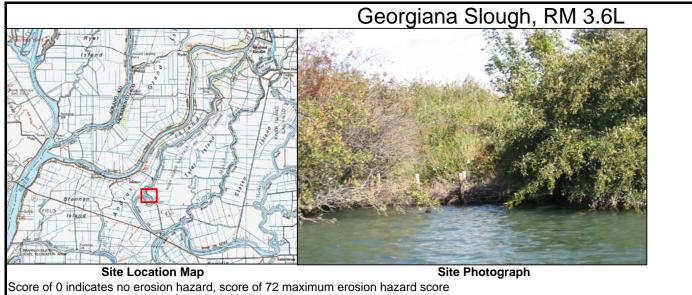
Velocity (*2)

Human Usage

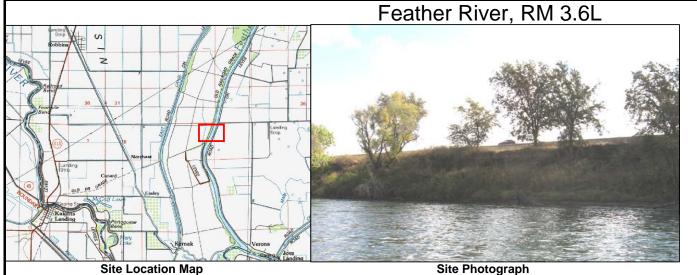
Erosion Hazard

Site Relative to Bend

Vegetation Cover



Criteria	Score	Notes	
Bank Slope (*2)	2	2:1 slope	
Berm Width (*2) - Estimated	4	less than 5 ft of berm	
Length of erosion	4	1165 ft	
Bank Stability	3	beaver burrow at toe, greater than 4 ft	
Site Relative to Bend	0	nside of a bend	
Vegetation Cover	0	00% cover	
Tree Hazard	2	nedium trees	
Soil Type (*2)	4	ands and silts	
Velocity (*2)	3	.64 ft/s	
Human Usage	1	occassional	
Erosion Hazard	36	Calculate Erosion Hazard	



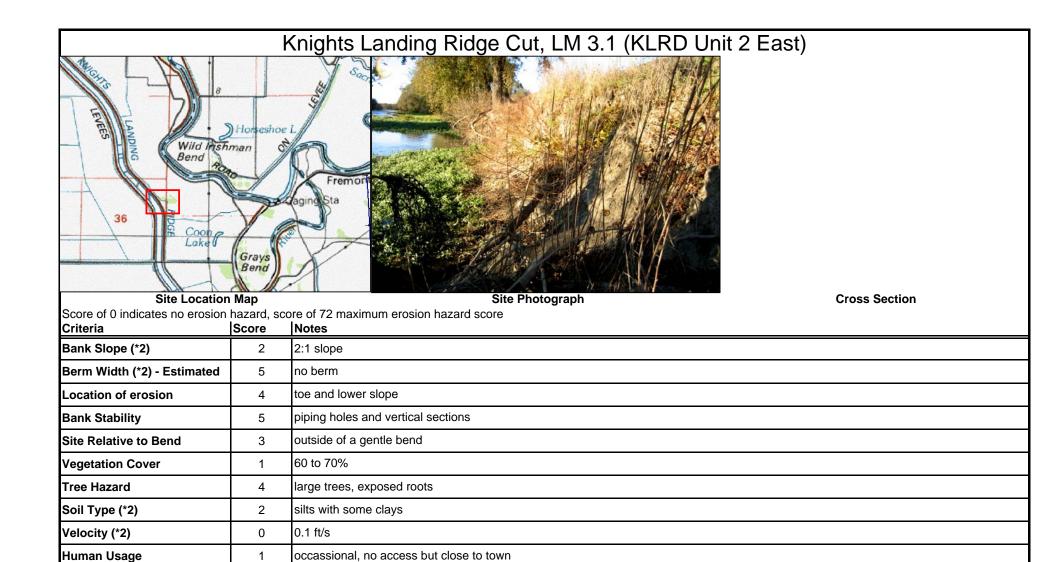
Calculate Erosion Hazard

Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

36

Erosion Hazard

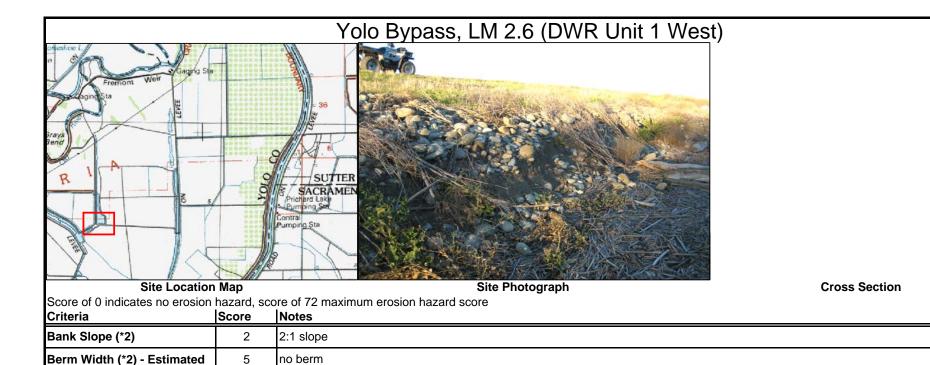
Criteria Score Notes Bank Slope (*2) 1.5:1 slope 30 ft Berm Width (*2) - Estimated 0 Location of erosion 2 whole bank holes left from fallen trees, and erosion pockets Bank Stability 3 Site Relative to Bend straight 1 80 to 90% Vegetation Cover 0 large trees with visible roots Tree Hazard 4 Soil Type (*2) 4 sands and silts Velocity (*2) 4 7.23 ft/s Path down, a bare spot that appears to be used by humans Human Usage 4



36

Erosion Hazard

Calculate Erosion Hazard



toe and lower slope

straight

no trees

1.5 ft/s

medium cover

sands and silts

occassional

vertical sections, about half bank height

Calculate Erosion Hazard

4

4

1

2

4

1

36

Location of erosion

Site Relative to Bend

Vegetation Cover

Bank Stability

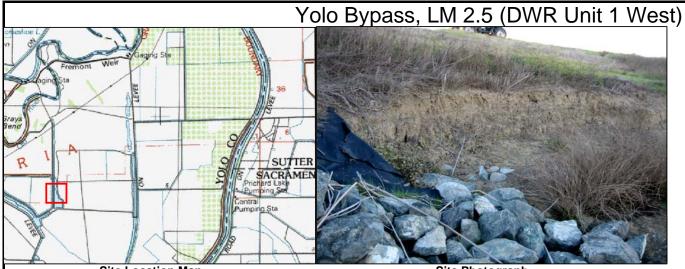
Tree Hazard

Soil Type (*2)

Velocity (*2)

Human Usage

Erosion Hazard



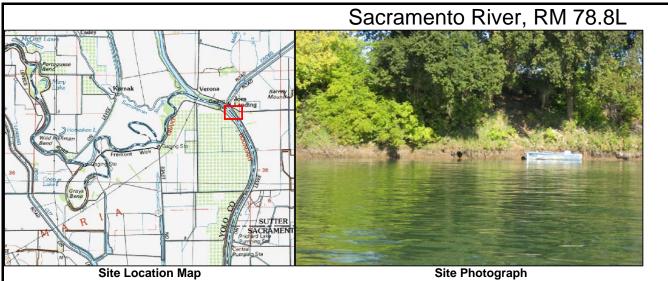
Site Location Map
Site Photograph
Cross Section
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score
Criteria
IScore | Notes

Criteria	Score	Notes	
Bank Slope (*2)	2	2:1 slope	
Berm Width (*2) - Estimated	5	no berm	
Location of erosion	4	toe and lower slope	
Bank Stability	4	vertical sections about half bank height	
Site Relative to Bend	1	straight	
Vegetation Cover	2	50%	
Tree Hazard	0	no trees	
Soil Type (*2)	4	ands and silts	
Velocity (*2)	1	1.5 ft/s	
Human Usage	1	occassional	
Erosion Hazard	36	Calculate Erosion Hazard	



Score of 0 indicates no erosion hazard, score of 112 maximum erosion hazard score

Notes Criteria Score Bank Slope (*2) 1:1 slope Berm Width (*2) - Estimated 30 ft 0 Location of erosion 4 full bank and toe Bank Stability 5 vertical sections and caves Site Relative to Bend relatively straight 1 30 - 40% Vegetation Cover 3 0 Tree Hazard no trees Soil Type (*2) 4 sands and silts Velocity (*2) 3.23 ft/s 3 Human Usage 0 rare, too steep **Erosion Hazard** 35 Calculate Erosion Hazard



Site Location Map
Site Photograph
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria	Score	Notes	
Bank Slope (*2)	3	1.5:1 slope	
Berm Width (*2) - Estimated	0	35 ft	
Location of erosion	3	toe	
Bank Stability	5	vertical sections less than half bank height and caves	
Site Relative to Bend	3	outside of a gentle bend	
Vegetation Cover	1	60 - 70%	
Tree Hazard	3	arge trees	
Soil Type (*2)	4	ands and silts	
Velocity (*2)	3	.82 ft/s	
Human Usage	0	rare	
Erosion Hazard	35	Calculate Erosion Hazard	



Site Location Map
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Notes Criteria Score 1.5:1 Bank Slope (*2) 125 ft Berm Width (*2) - Estimated 0 Location of erosion 4 levee slope and toe Bank Stability 2 small vertical sections Site Relative to Bend straight 1 40% Vegetation Cover 3 3 large trees, one recently fallen Tree Hazard Soil Type (*2) 4 sands and silts 5.11 ft/s Velocity (*2) 4 Human Usage gate on top, rare 0 **Erosion Hazard** 35 Calculate Erosion Hazard



Site Location Map
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Site Photograph
Cross Section

Criteria	Score	Notes
Bank Slope (*2)	4	1:1 slope
Berm Width (*2) - Estimated	2	10 ft
Location of erosion	2	berm slope

Bank Stability 2 vertical sections, less than half bank height
Site Relative to Bend 1 straight

Vegetation Cover 1 80%

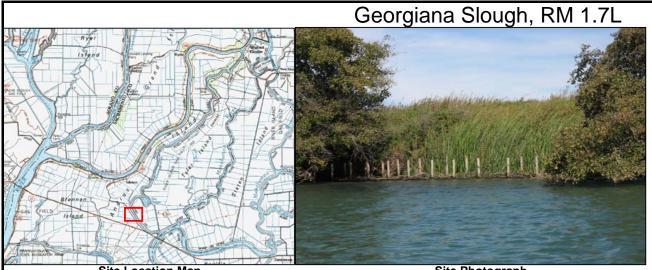
Tree Hazard 4 large trees with exposed roots

 Soil Type (*2)
 2
 clays and silts

 Velocity (*2)
 3
 4.54 ft/s

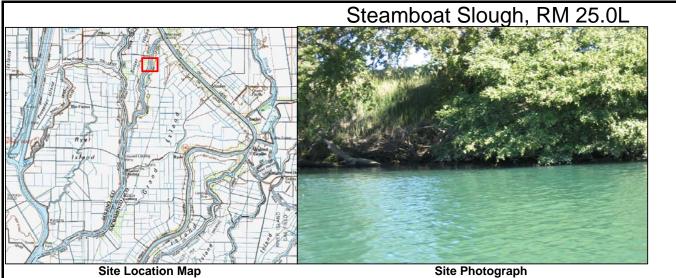
Human Usage 3 monthly, some debris

Erosion Hazard 35 Calculate Erosion Hazard



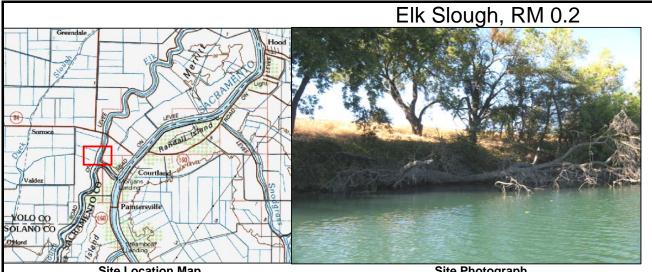
Site Location Map
Site Photograph
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score
Criteria | Score | Notes

Criteria	Score	Notes	
Bank Slope (*2)	2	2:1 slope	
Berm Width (*2) - Estimated	4	less than 5 ft	
Location of erosion	3	toe	
Bank Stability	3	beaver burrows, greater than 4 ft	
Site Relative to Bend	1	traight	
Vegetation Cover	0	95%	
Tree Hazard	2	nedium trees	
Soil Type (*2)	4	ands and silts	
Velocity (*2)	3	1.05 ft/s	
Human Usage	0	Vegetation too dense for human access	
Erosion Hazard	35	Calculate Erosion Hazard	



Site Location Map
Site Photograph
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

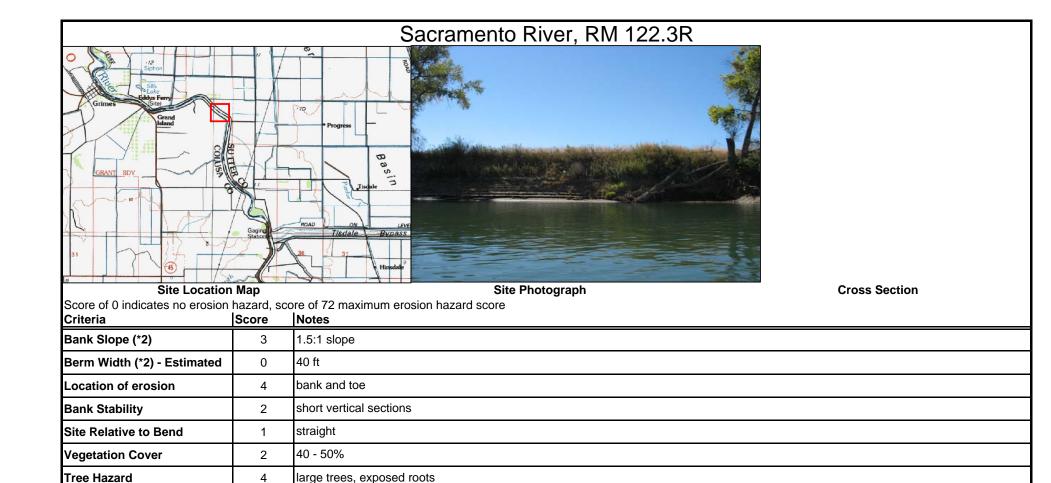
Criteria		Notes	
Bank Slope (*2)	3	1.5:1 slope	
Berm Width (*2) - Estimated	3	5 ft	
Location of erosion	2	lower bank	
Bank Stability	1	caves from tree popouts	
Site Relative to Bend	1	traight	
Vegetation Cover	2	0%	
Tree Hazard	5	arge trees, exposed roots and leaning	
Soil Type (*2)	2	ays and silts	
Velocity (*2)	3	48 ft/s	
Human Usage	2	easonal	
Erosion Hazard	35	Calculate Erosion Hazard	



Site Location Map Site Photograph Cross Section

Score of 0 inc	dicates no erosion	hazard, so	core of 72	? maximum	erosion l	nazard	score
		I _	1				

Criteria	Score	Notes	
Bank Slope (*2)	4	1:1 slope	
Berm Width (*2) - Estimated	5	no berm	
Location of erosion	1	levee slope	
Bank Stability	2	vertical sections, less than half bank height	
Site Relative to Bend	1	straight	
Vegetation Cover	0	lense, 80 to 90%	
Tree Hazard	4	arge trees with exposed roots	
Soil Type (*2)	1	lays	
Velocity (*2)	2	t ft/s	
Human Usage	3	near highway, monthly	
Erosion Hazard	35	Calculate Erosion Hazard	



Soil Type (*2)

Velocity (*2)

Human Usage

Erosion Hazard

2

4

3

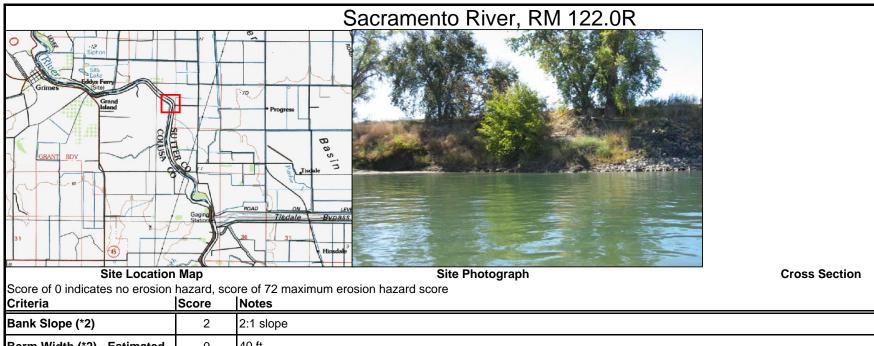
34

clays and silts

Calculate Erosion Hazard

5.48 ft/s

monthly



40 ft Berm Width (*2) - Estimated 0 Location of erosion 4 lower bank and toe vertical sections greater than half bank height Bank Stability 4 inside of a bend Site Relative to Bend 0 40% Vegetation Cover 2 large trees, exposed roots and leaning 5 Tree Hazard Soil Type (*2) 2 clays and silts Velocity (*2) 4 5.01 ft/s Human Usage 3 monthly

Erosion Hazard 34 Calculate Erosion Hazard

Carried State Common Liverglands

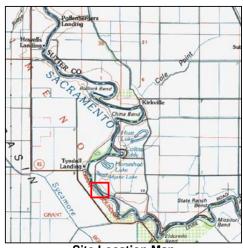
Sacramento River, RM 116.0L



Site Location Map

Site Photograph

Score of 0 indicates no erosion Criteria	n hazard, s Score	core of 112 maximum erosion hazard score Notes	0.000 000
Bank Slope (*2)	4	1.5: slope	
Berm Width (*2) - Estimated	0	30 ft	
Location of erosion	4	toe and berm	
Bank Stability	2	vertical sections, less than half bank height	
Site Relative to Bend	1	straight	
Vegetation Cover	2	60%	
Tree Hazard	0	no trees	
Soil Type (*2)	4	sands and silts	
Velocity (*2)	3	4.35 ft/s	
Human Usage	3	monthly	
Frosion Hazard	34	Calculate Frosion Hazard	



Sacramento River, RM 101.3R



Site Location Map

2

3

34

clays and silts

occassional

3.22 ft/s

Site Photograph

Cross Section

One Location map		One i notograph	01000 00011011	
Score of 0 indicates no erosion hazard, score of		ore of 72 maximum erosion hazard score		
Criteria Score Notes				
Bank Slope (*2)	4	1:1 slope	:1 slope	
Berm Width (*2) - Estimated	2	greater than 10 ft		
Location of erosion	3	oe		
Bank Stability	5	caves less than 4 ft and some vertical sections		
Site Relative to Bend	1	straight		
Vegetation Cover	2	50%		
Tree Hazard	0	small trees		

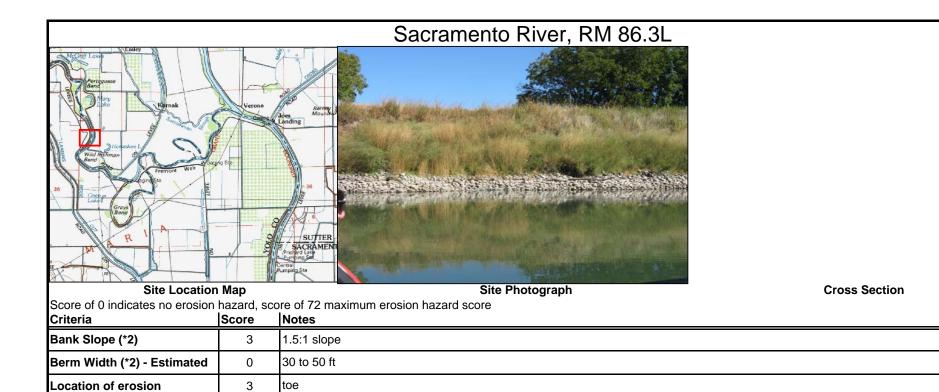
Erosion Hazard

Soil Type (*2)

Velocity (*2)

Human Usage

Calculate Erosion Hazard



vertical sections less than half bank height and caves

Calculate Erosion Hazard

outside of a gentle bend

about 50%

3.35 ft/s

occassional

no trees on bank

sands and silts

Bank Stability

Tree Hazard

Soil Type (*2)

Velocity (*2)

Human Usage

Erosion Hazard

Site Relative to Bend

Vegetation Cover

5

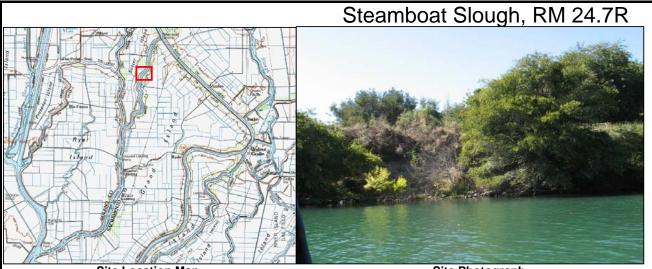
3

2

4

3

34



Site Location Map Site Photograph **Cross Section** Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

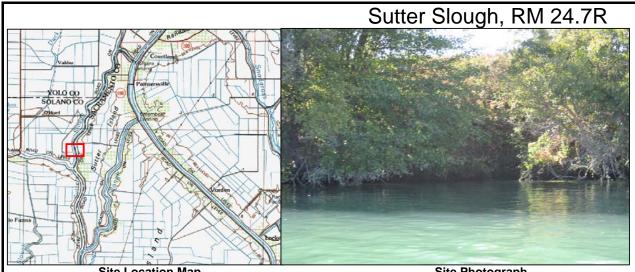
Criteria	Score	Notes	
Bank Slope (*2)	4	1:1 slope	
Berm Width (*2) - Estimated	3	5 ft	
Location of erosion	2	full bank	
Bank Stability	2	some vertical sections	
Site Relative to Bend	0	inside of a bend	
Vegetation Cover	1	75%	
Tree Hazard	4	trees with exposed roots	
Soil Type (*2)	2	clays and silts	
Velocity (*2)	3	4.67 ft/s	
Human Usage	1	occassional	
Erosion Hazard	34	Calculate Erosion Hazard	



Site Location Map
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

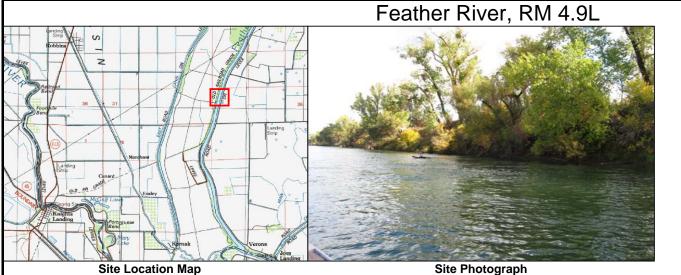
Criteria	Score	Notes	
Bank Slope (*2)	4	1:1 slope	
Berm Width (*2) - Estimated	5	no berm	
Location of erosion	1	levee slope	
Bank Stability	0	no vertical sections or caves	
Site Relative to Bend	1	straight	
Vegetation Cover	0	90%	
Tree Hazard	1	young trees	
Soil Type (*2)	2	clays and silts	
Velocity (*2)	3	3.72 ft/s	
Human Usage	3	monthly	
Erosion Hazard	34	Calculate Erosion Hazard	



Site Location Map
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Cross Section

Criteria	Score	Notes	
Bank Slope (*2)	2	2:1 slope	
Berm Width (*2) - Estimated	3	5 ft	
Location of erosion	2	lower bank	
Bank Stability	2	vertical sections, half bank height	
Site Relative to Bend	3	outside of a gentle bend	
Vegetation Cover	0	80%	
Tree Hazard	4	small to medium trees, exposed roots	
Soil Type (*2)	2	clays and silts	
Velocity (*2)	3	4.73 ft/s	
Human Usage	3	monthly	
Erosion Hazard	34	Calculate Erosion Hazard	



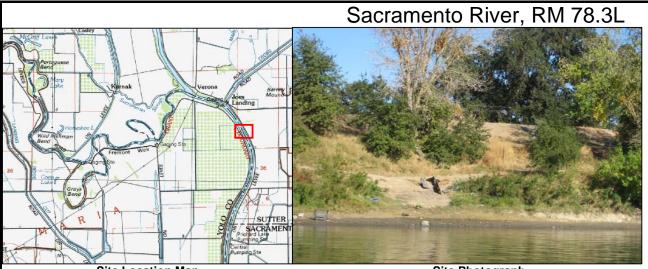
Erosion Hazard

34

Site Location Map
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Calculate Erosion Hazard

Score Notes Criteria Bank Slope (*2) 1.5:1 slope Berm Width (*2) - Estimated greater than 30 ft 0 Location of erosion berm 1 no vertical sections or burrows **Bank Stability** 0 Site Relative to Bend straight 1 60 to 70% cover Vegetation Cover 1 trees with visible roots Tree Hazard 4 Soil Type (*2) 4 sands and silts Velocity (*2) 5 8.79 ft/s Human Usage 3 monthly



Site Location Map
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

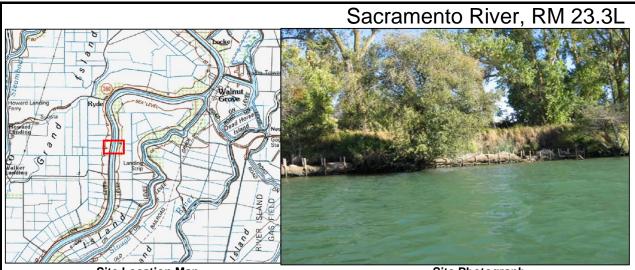
Site Photograph
Cross Section

Criteria	Score	Notes	
Bank Slope (*2)	1	2.5:1 slope	
Berm Width (*2) - Estimated	2	15 ft	
Location of erosion	3	toe	
Bank Stability	0	no vertical sections or caves	
Site Relative to Bend	1	straight	
Vegetation Cover	1	80%	
Tree Hazard	3	large trees	
Soil Type (*2)	4	sands and silts	
Velocity (*2)	3	4.89 ft/s	
Human Usage	5	daily, road and lots of human debris	
Erosion Hazard	33	Calculate Erosion Hazard	



Site Location Map Site Photograph Cross Section
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

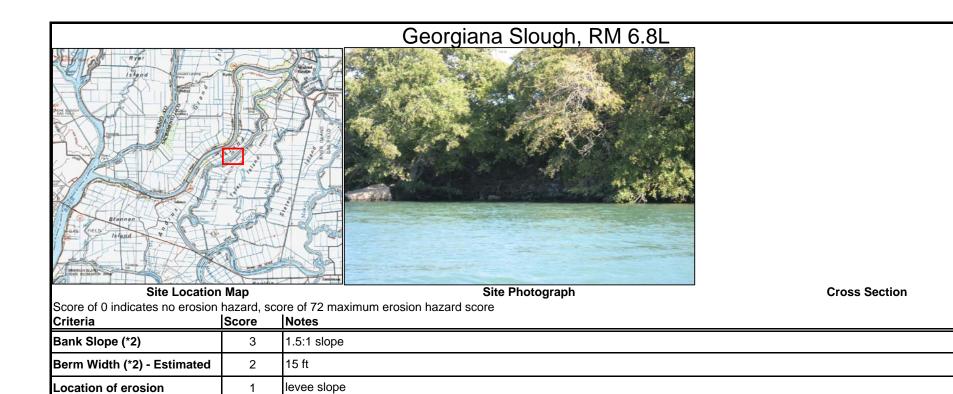
	Score	lotes	
Bank Slope (*2)	3	5:1 slope	
Berm Width (*2) - Estimated	2	less than 20 ft	
Location of erosion	3	toe	
Bank Stability	2	vertical sections, less than halfbank height	
Site Relative to Bend	1	straight	
Vegetation Cover	1	80%	
Tree Hazard	4	large trees with exposed roots	
Soil Type (*2)	2	clays and silts	
Velocity (*2)	3	3.08 ft/s	
Human Usage	2	heavy veg, seasonal	
Erosion Hazard	33	Calculate Erosion Hazard	



Site Photograph **Cross Section** Site Location Map

Score o	of 0 indicates n	o erosion hazard	d, score of 72	2 maximum erosion	hazard score
		I -	I		

Criteria	Score	Notes
Bank Slope (*2)	3	2:1 slope
Berm Width (*2) - Estimated	0	30 to 50 ft
Location of erosion	4	berm and toe
Bank Stability	2	short vertical sections
Site Relative to Bend	1	straight
Vegetation Cover	0	80 - 90%
Tree Hazard	4	large trees, exposed roots
Soil Type (*2)	4	sands and silts
Velocity (*2)	3	4.16 ft/s
Human Usage	2	seasonal
Erosion Hazard	33	Calculate Erosion Hazard



Bank Stability

Tree Hazard Soil Type (*2)

Velocity (*2)

Human Usage

Erosion Hazard

Site Relative to Bend

Vegetation Cover

2

1

3

4

3

2

33

short vertical sections

straight

large trees

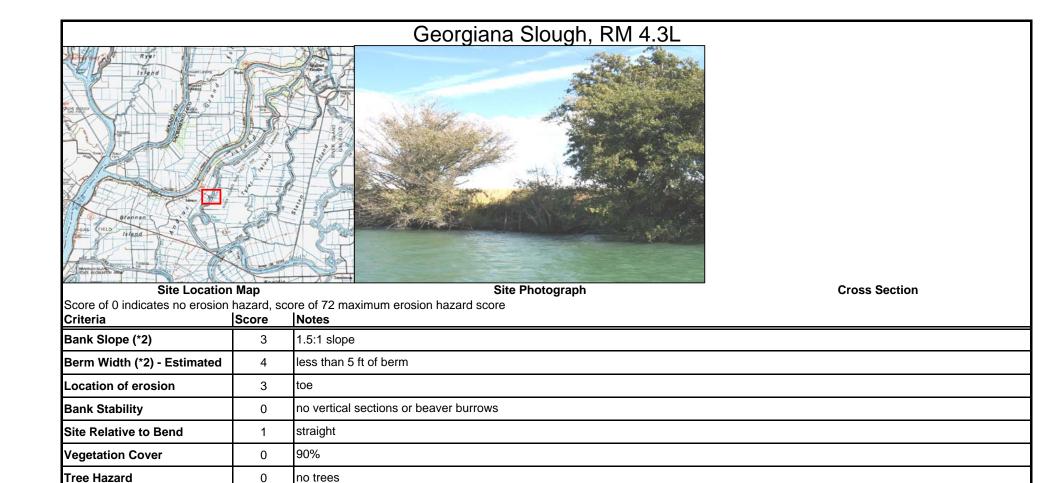
3.77 ft/s

seasonal

sands and silts

Calculate Erosion Hazard

95%



Soil Type (*2)

Velocity (*2)

Human Usage

Erosion Hazard

4

3

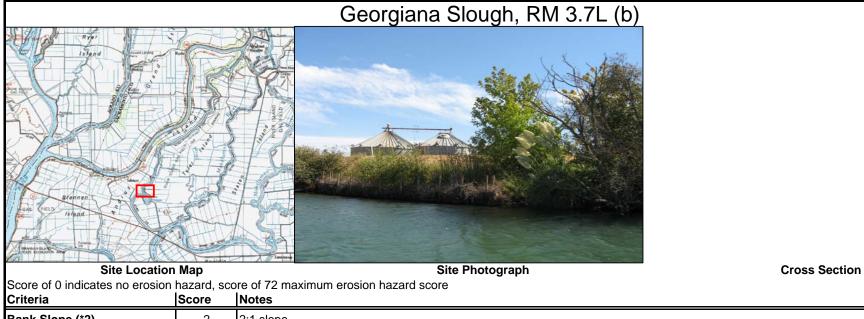
33

sands and silts

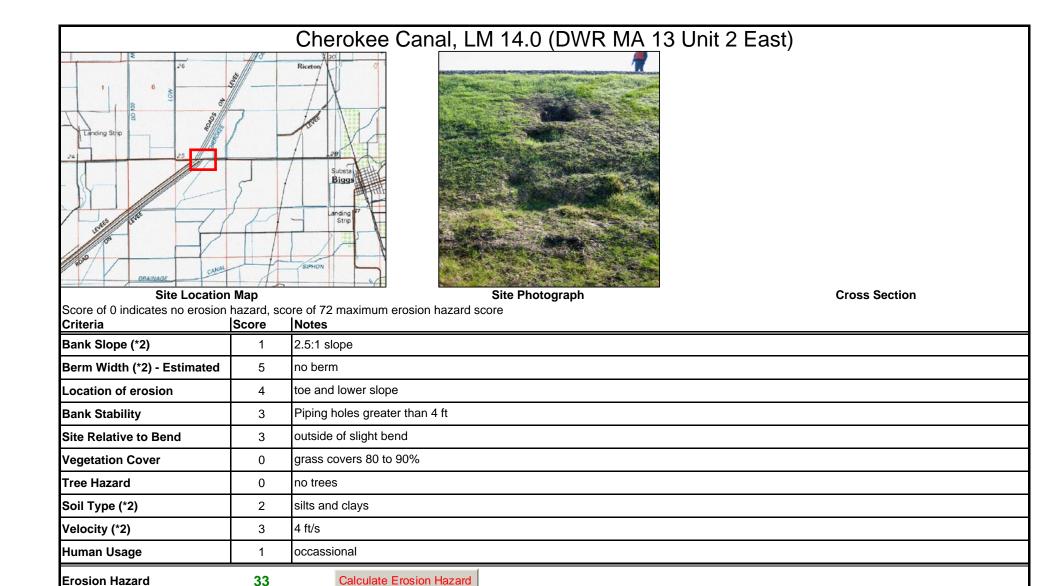
4.02 ft/s

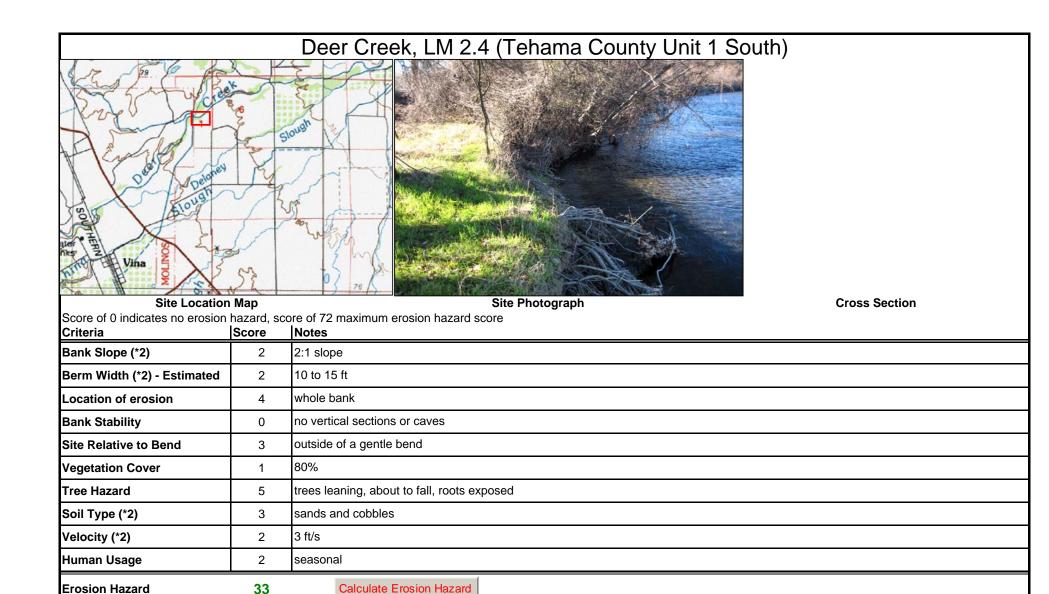
occassional

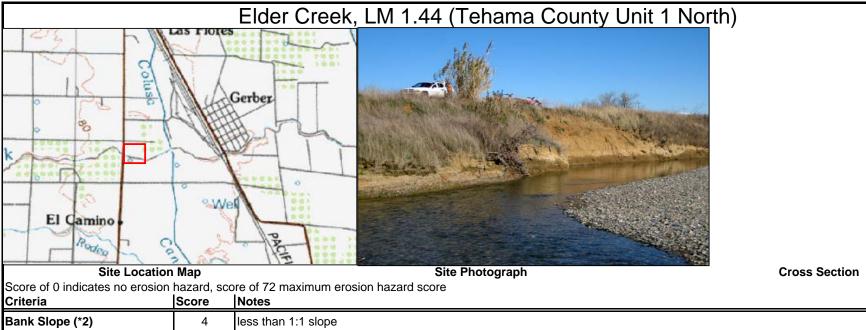
Calculate Erosion Hazard



Bank Slope (*2) 2:1 slope Berm Width (*2) - Estimated 4 less than 5 ft Location of erosion 3 toe some erosion pockets **Bank Stability** 1 Site Relative to Bend inside of a bend 0 70% cover Vegetation Cover 1 young trees Tree Hazard 1 Soil Type (*2) 4 sands and silts Velocity (*2) 4.04 ft/s 3 Human Usage adjacent to private property, occassional **Erosion Hazard** 33 Calculate Erosion Hazard







25 to 30 ft Berm Width (*2) - Estimated 1 Location of erosion 5 whole bank and underwater **Bank Stability** 5 vertical sections and animal burrows straight Site Relative to Bend 1 60% Vegetation Cover 2 0 Tree Hazard no trees Soil Type (*2) 2 clays and silts Velocity (*2) 2 3 ft/s Human Usage 2 seasonal

Erosion Hazard 33 Calculate Erosion Hazard

Compton Leving Chief Compton C

Sacramento River, RM 152.8L



Site Location Map

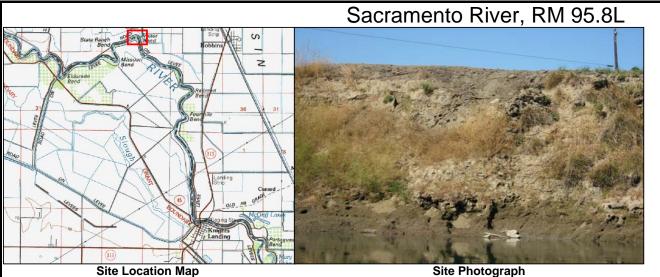
Site Photograph

Score of 0 indicates no erosion Criteria	hazard, so	e of 72 maximum erosion hazard score Notes			
Bank Slope (*2)	3	1.5:1 slope			
Berm Width (*2) - Estimated	0	30 ft			
Location of erosion	2	full bank			
Bank Stability	5	vertical sections and caves			
Site Relative to Bend	1	straight			
Vegetation Cover	1	70%			
Tree Hazard	5	large trees, leaning with exposed roots			
Soil Type (*2)	2	clays and silts			
Velocity (*2)	3	4.64 ft/s			
Human Usage	2	seasonal			
Erosion Hazard	32	Calculate Erosion Hazard			



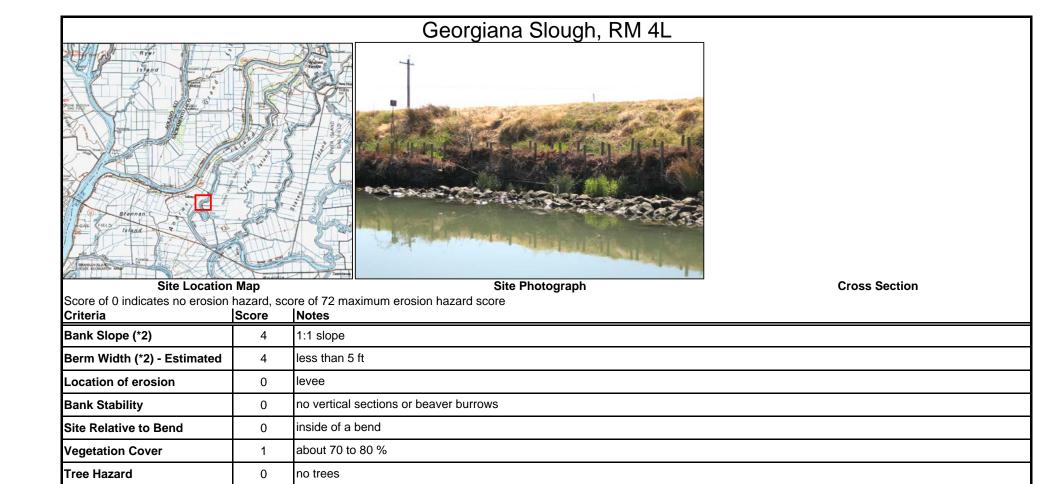
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria	Score	Notes			
Bank Slope (*2)	2	2:1 slope			
Berm Width (*2) - Estimated	1	25 ft			
Location of erosion	3	toe			
Bank Stability	1	caves			
Site Relative to Bend	2	just downstream of a bend			
Vegetation Cover	3	40%			
Tree Hazard	3	arge trees			
Soil Type (*2)	2	clays and silts			
Velocity (*2)	4	i.04 ft/s			
Human Usage	2	seasonal			
Erosion Hazard	32	Calculate Erosion Hazard			



Site Location Map
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score
Criteria
IScore
INdes

Criteria	Score	Notes			
Bank Slope (*2)	3	1.5:1 slope			
Berm Width (*2) - Estimated	0	30 ft			
Location of erosion	3	toe			
Bank Stability	1	animal burrows			
Site Relative to Bend	5	outside of a tight bend			
Vegetation Cover	1	70%			
Tree Hazard	0	no trees			
Soil Type (*2)	4	ands and silts			
Velocity (*2)	3	.38 ft/s			
Human Usage	2	seasonal			
Erosion Hazard	32	Calculate Erosion Hazard			



Soil Type (*2)

Velocity (*2)

Human Usage

Erosion Hazard

4

3

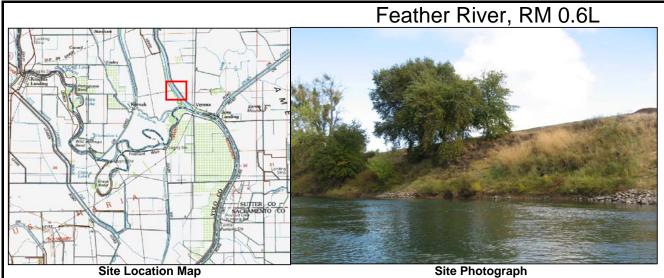
32

sands and silts

3.76 ft/s

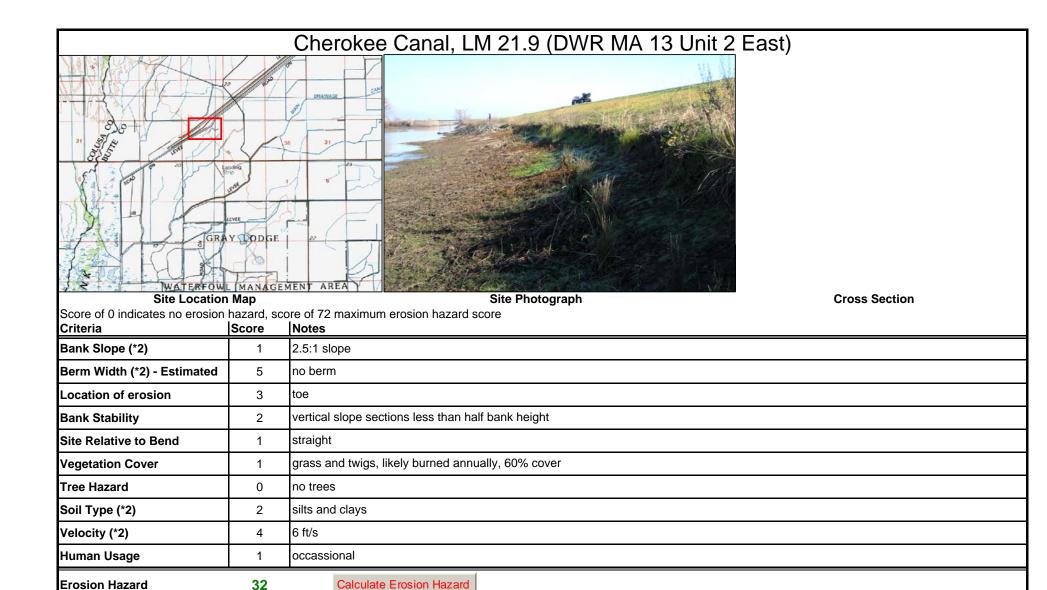
occassional

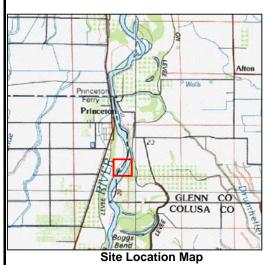
Calculate Erosion Hazard



Site Location Map
Site Photograph
Cross Section
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria	Score	Notes			
Bank Slope (*2)	1	2.5:1 slope			
Berm Width (*2) - Estimated	2	15 ft			
Location of erosion	3	toe			
Bank Stability	0	no vertical sections or caves/burrows			
Site Relative to Bend	1	straight			
Vegetation Cover	1	about 60 to 70%			
Tree Hazard	4	large trees with visible roots			
Soil Type (*2)	3	Sands			
Velocity (*2)	3	.8 ft/s			
Human Usage	5	multiple paths seen down to river, daily usage			
Erosion Hazard	32	Calculate Erosion Hazard			





Sacramento River, RM 163.0L



Cross Section

Site Photograph

Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria	Score	Notes			
Bank Slope (*2)	3	1.5:1 slope			
Berm Width (*2) - Estimated	0	60 ft			
Location of erosion	2	full bank			
Bank Stability	2	vertical sections, less than half bank height			
Site Relative to Bend	3	outside of a gentle bend			
Vegetation Cover	0	80%			
Tree Hazard	4	large trees with exposed roots			
Soil Type (*2)	2	clays and silts			
Velocity (*2)	5	10.07 ft/s			
Human Usage	0	rare			
Erosion Hazard	31	Calculate Erosion Hazard			

Sacramento River, RM 24.8L

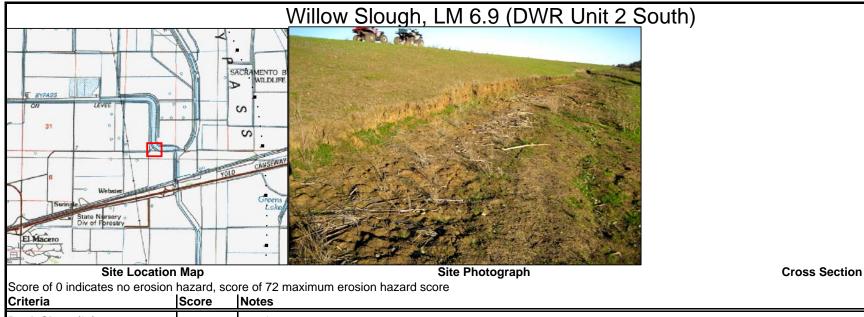




Site Location Map
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

ograph Cross Section

Criteria	Score	Notes			
Bank Slope (*2)	2	2:1 slope			
Berm Width (*2) - Estimated	2	10 ft			
Location of erosion	2	berm slope			
Bank Stability	0	no vertical sections or caves			
Site Relative to Bend	1	straight			
Vegetation Cover	0	90%			
Tree Hazard	3	large trees			
Soil Type (*2)	4	sands and silts			
Velocity (*2)	3	4.5 ft/s			
Human Usage	3	monthly			
Erosion Hazard	31	Calculate Erosion Hazard			



Criteria	Score	Notes			
Bank Slope (*2)	2	2:1 slope			
Berm Width (*2) - Estimated	5	no berm			
Location of erosion	2	lower levee slope			
Bank Stability	2	vertical sections, less than half bank height			
Site Relative to Bend	4	outside of a 90 degree bend			
Vegetation Cover	3	poorly seeded grass			
Tree Hazard	0	no trees			
Soil Type (*2)	2	elays and silts			
Velocity (*2)	0	.2 ft/s			
Human Usage	2	seasonal for duck hunting			
Fracion Hazard	21	Calculate Erosion Hazard			

Erosion Hazard 31 Calculate Erosion Hazard

Follenistriers Landing Howells Landing Ridoct Benn Rireville Chart Colors River Lake State Bench Affective Affect Lake Tymodall Landing Affect Lake Tymodall Landing Affect Lake Tymodall Tymodall Affect Lake Tymodall Tymod

Sacramento River, RM 104.0L

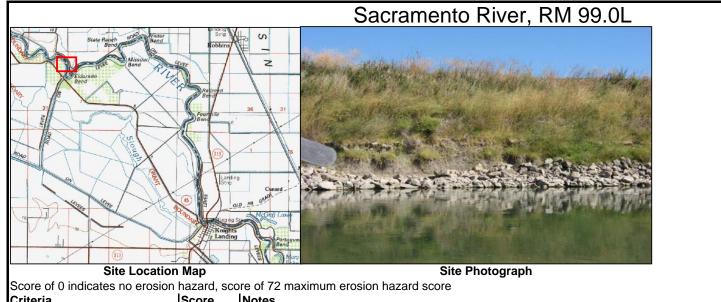


Site Location Map

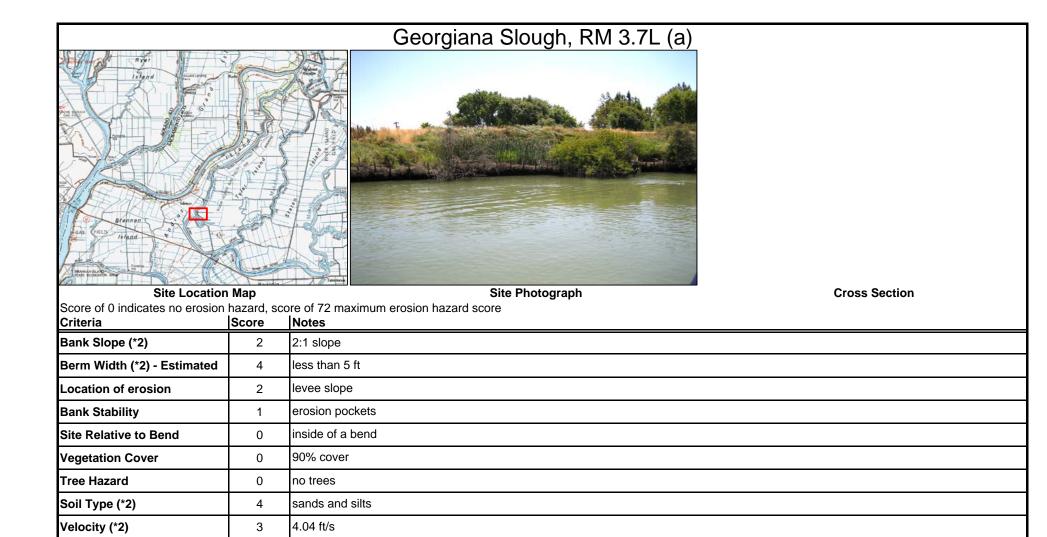
Site Photograph

Score	e of () indicat	es no	erosion	hazard	, score o	of 72	maximum	erosion	hazard	score
	_					1					

Criteria	Score	Notes			
Bank Slope (*2)	3	I.5:1 slope			
Berm Width (*2) - Estimated	0	35 ft			
Location of erosion	4	levee, and berm			
Bank Stability	2	vertical sections, less than half bank height			
Site Relative to Bend	4	outside of a 90 degree bend			
Vegetation Cover	1	60% to 70%			
Tree Hazard	0	no trees			
Soil Type (*2)	4	ands and silts			
Velocity (*2)	2	.25 ft/s			
Human Usage	1	occassional			
Erosion Hazard	30	Calculate Erosion Hazard			



Criteria	Score	Notes			
Bank Slope (*2)	4	1:1 slope			
Berm Width (*2) - Estimated	2	10 ft			
Location of erosion	1	levee slope			
Bank Stability	0	no vertical sections or caves			
Site Relative to Bend	3	outside of a gentle bend			
Vegetation Cover	1	60%			
Tree Hazard	0	no trees			
Soil Type (*2)	4	sands and silts			
Velocity (*2)	2	2.72 ft/s			
Human Usage	1	occassional			
Erosion Hazard	30	Calculate Erosion Hazard			



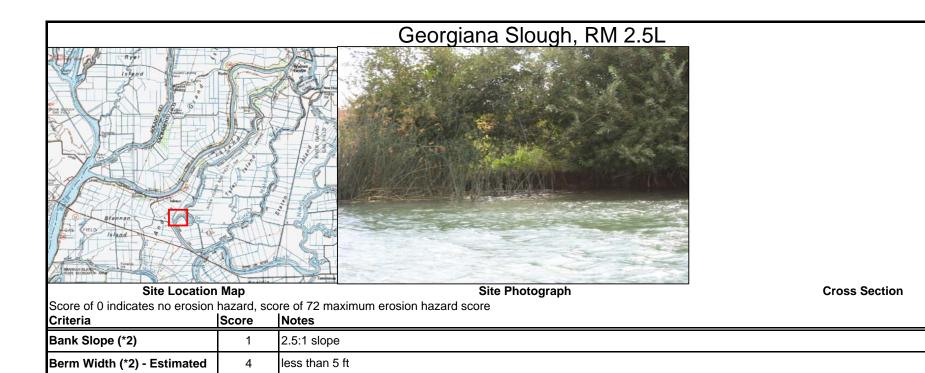
Human Usage

Erosion Hazard

occasional

Calculate Erosion Hazard

30



some vertical sections, less than half the slope height

Calculate Erosion Hazard

Location of erosion

Site Relative to Bend

Vegetation Cover

Bank Stability

Tree Hazard

Soil Type (*2)

Velocity (*2)

Human Usage

Erosion Hazard

3

2

0

0

4

3

30

toe

90%

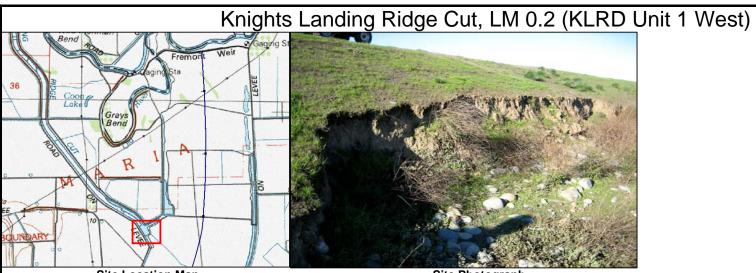
inside of a bend

small trees

occassional

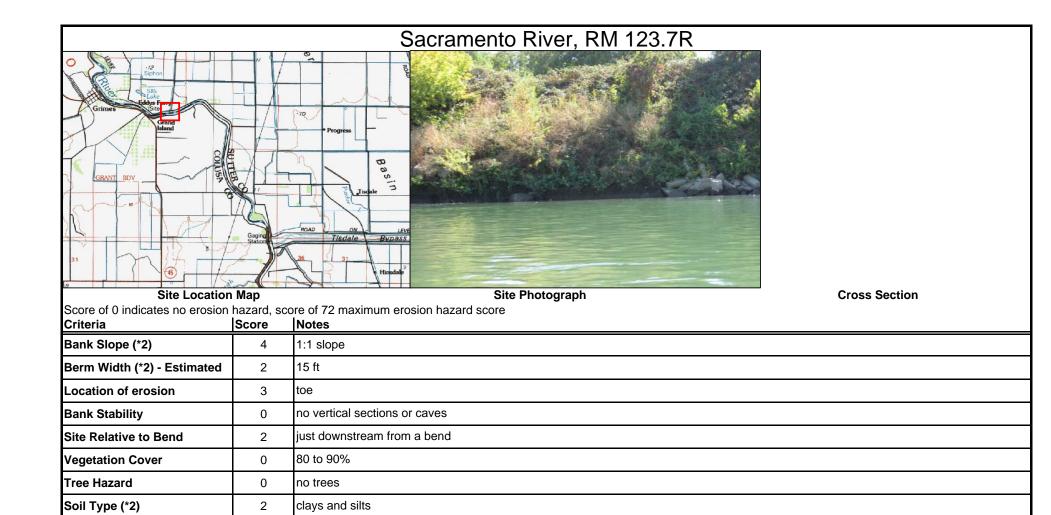
3.99 ft/s

sands and silts



Site Location Map
Site Photograph
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score
Criteria

Criteria	Score	Notes			
Bank Slope (*2)	2	2:1 slope			
Berm Width (*2) - Estimated	5	no berm			
Location of erosion	4	toe and lower slope			
Bank Stability	4	vertical sections, about half bank height			
Site Relative to Bend	1	relatively straight			
Vegetation Cover	3	40% or slightly more, likely burned annualy			
Tree Hazard	0	no trees			
Soil Type (*2)	2	clays and silts			
Velocity (*2)	0	0.1 ft/s			
Human Usage	0	rare, no public access			
Erosion Hazard	30	Calculate Erosion Hazard			



Velocity (*2)

Human Usage

Erosion Hazard

5.3 ft/s

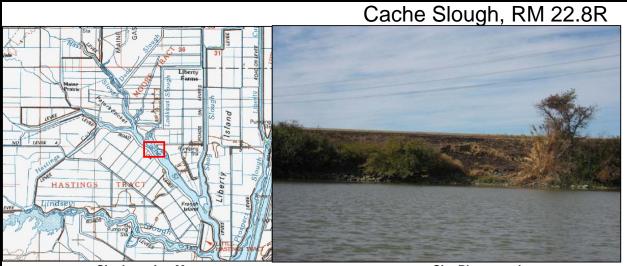
Calculate Erosion Hazard

rare

4

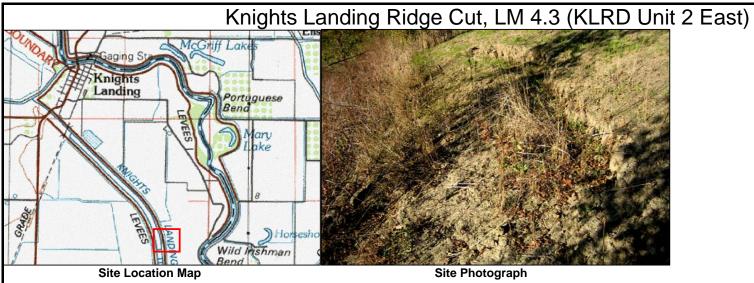
0

29



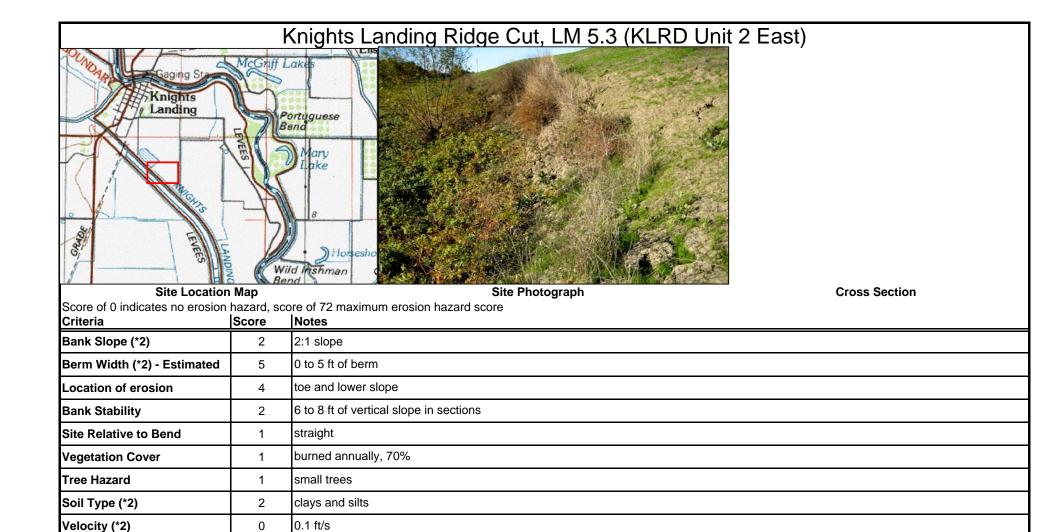
Site Location Map Site Photograph Cross Section

Score of 0 indicates no erosion	core of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score				
Criteria	Score	otes			
Bank Slope (*2)	1	2.5:1 slope			
Berm Width (*2) - Estimated	5	no berm			
Location of erosion	4	mid-lower bank and toe			
Bank Stability	2	vertical sections, less than half bank height			
Site Relative to Bend	1	straight			
Vegetation Cover	2	40%			
Tree Hazard	0	small trees			
Soil Type (*2)	2	clays and silts			
Velocity (*2)	0	ess than a 1ft/s			
Human Usage	4	weekly, human debris and path			
Erosion Hazard	29	Calculate Erosion Hazard			



Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	5	no berm
Location of erosion	4	toe and lower slope
Bank Stability	2	vertical sections, less than half bank height
Site Relative to Bend	1	relatively straight
Vegetation Cover	2	50 to 60%
Tree Hazard	1	young trees
Soil Type (*2)	2	silts with some clay
Velocity (*2)	0	0.1 ft/s
Human Usage	1	occassional, no access but close to town
Erosion Hazard	29	Calculate Erosion Hazard



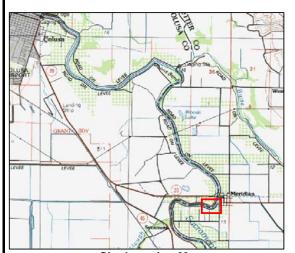
occassional, no access but close to town

Calculate Erosion Hazard

28

Human Usage

Erosion Hazard



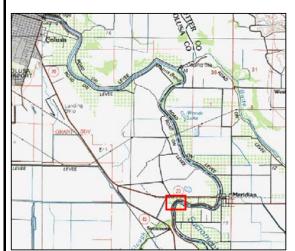
Sacramento River, RM 133.8L



Site Location Map

Site Photograph

Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score		
Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	1	more than 20 ft of berm
Location of erosion	2	lower bank
Bank Stability	2	vertical sections less than half bank height
Site Relative to Bend	4	outside of a 90 degree bend
Vegetation Cover	1	80%
Tree Hazard	0	no trees
Soil Type (*2)	1	clays and rounded stone
Velocity (*2)	3	4.9 ft/s
Human Usage	2	adjacent to town, seasonal
Erosion Hazard	27	Calculate Erosion Hazard



Sacramento River, RM 132.9R



Site Location Map

Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria | Score | Notes

Criteria	Score	Notes
Bank Slope (*2)	1	2.5:1 slope
Berm Width (*2) - Estimated	0	30 ft
Location of erosion	2	full bank
Bank Stability	2	small vertical sections
Site Relative to Bend	5	outside of a less than 90 degree bend
Vegetation Cover	3	40%
Tree Hazard	1	young trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	3	4.97 ft/s
Human Usage	2	seasonal
Erosion Hazard	27	Calculate Erosion Hazard



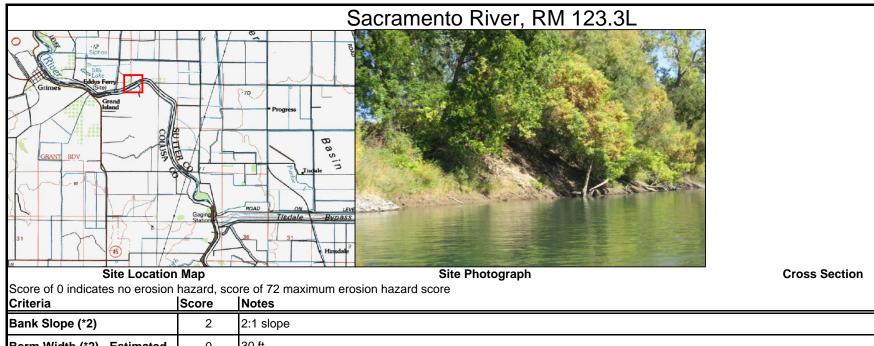
Calculate Erosion Hazard

Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

27

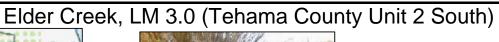
Erosion Hazard

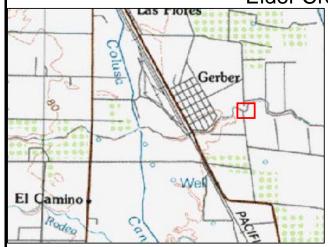
Score Notes Criteria Bank Slope (*2) 2:1 slope Berm Width (*2) - Estimated 35 ft 0 Location of erosion 4 bank and toe **Bank Stability** 2 vertical at toe outside of a gentle bend Site Relative to Bend 3 40% Vegetation Cover 2 3 large trees Tree Hazard Soil Type (*2) 2 clays and silts Velocity (*2) 2.92 ft/s 2 Human Usage occassioanl



30 ft Berm Width (*2) - Estimated 0 Location of erosion 4 full bank and toe **Bank Stability** 0 no vertical sections or caves Site Relative to Bend straight 1 40% Vegetation Cover 2 large trees with exposed roots Tree Hazard 4 Soil Type (*2) 2 clays and silts Velocity (*2) 4.82 dt/s 3 Human Usage 2 seasonal

Erosion Hazard 27 Calculate Erosion Hazard



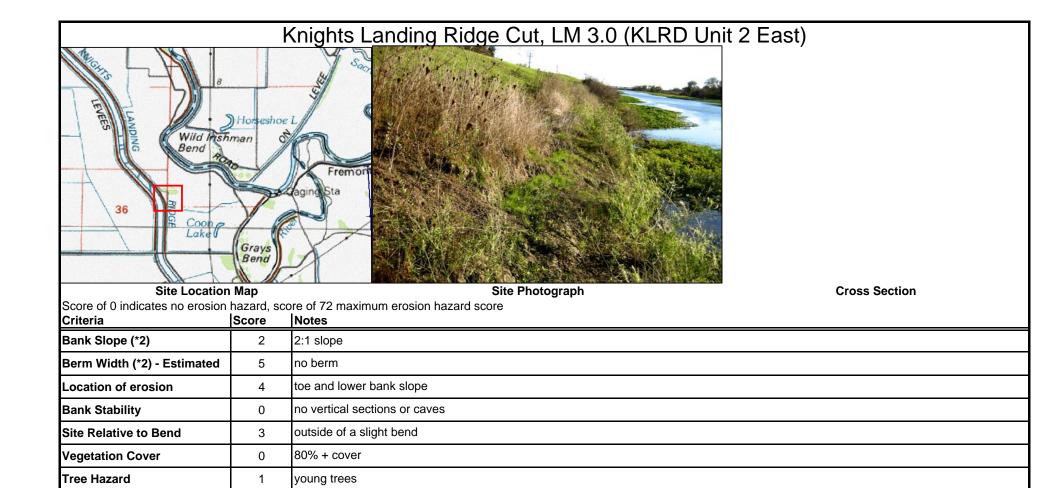




Site Location Map Site Photograph

Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	1	25 to 30 ft
Location of erosion	4	whole bank
Bank Stability	0	no holes or vertical sections
Site Relative to Bend	5	outside of a tight bend
Vegetation Cover	0	80%
Tree Hazard	0	small trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	2	3 ft/s
Human Usage	2	seasonal
Erosion Hazard	27	Calculate Erosion Hazard



Soil Type (*2)

Velocity (*2)

Human Usage

Erosion Hazard

2

0

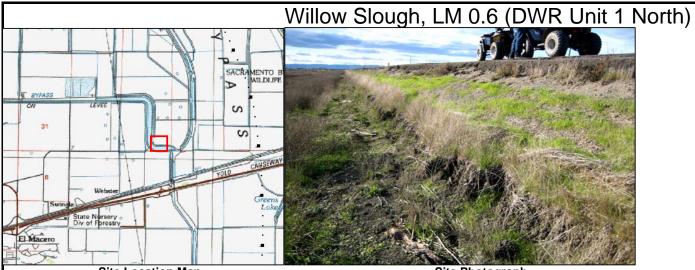
27

silts with some clays

occassional, no access but near town

Calculate Erosion Hazard

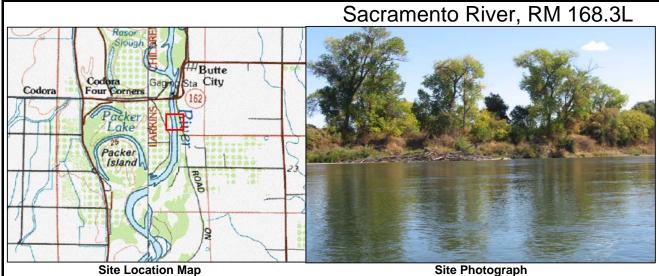
0.1 ft/s



Site Location Map
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Site Photograph
Cross Section

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	5	no berm
Location of erosion	0	upper levee slope
Bank Stability	2	short vertical sections
Site Relative to Bend	1	straight
Vegetation Cover	2	50%
Tree Hazard	0	no trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	0	0.5 ft/s
Human Usage	2	seasonal for duck hunting
Erosion Hazard	27	Calculate Erosion Hazard



Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Score Criteria Notes Bank Slope (*2) 2.5:1 slope 30 ft Berm Width (*2) - Estimated 0 Location of erosion 3 toe **Bank Stability** 0 no vertical sections or caves Site Relative to Bend straight 1 60 to 70% Vegetation Cover 1 3 large trees Tree Hazard Soil Type (*2) 4 sand and silts (sand deposited) Velocity (*2) 4.81 ft/s 3 Human Usage 2 seasonal **Erosion Hazard** 26 Calculate Erosion Hazard



Sacramento River, RM 104.5L



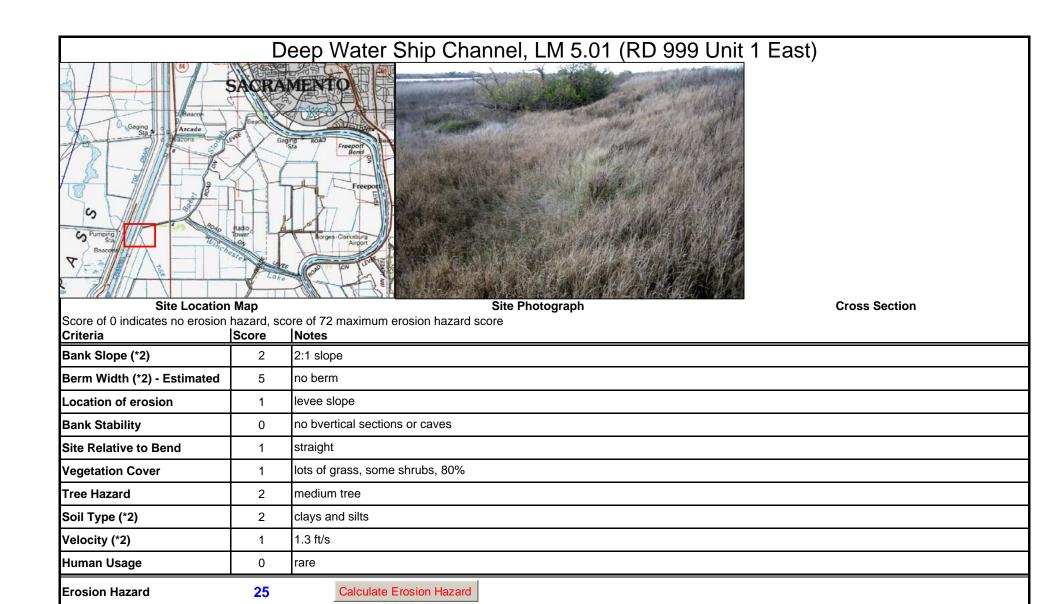
Site Photograph

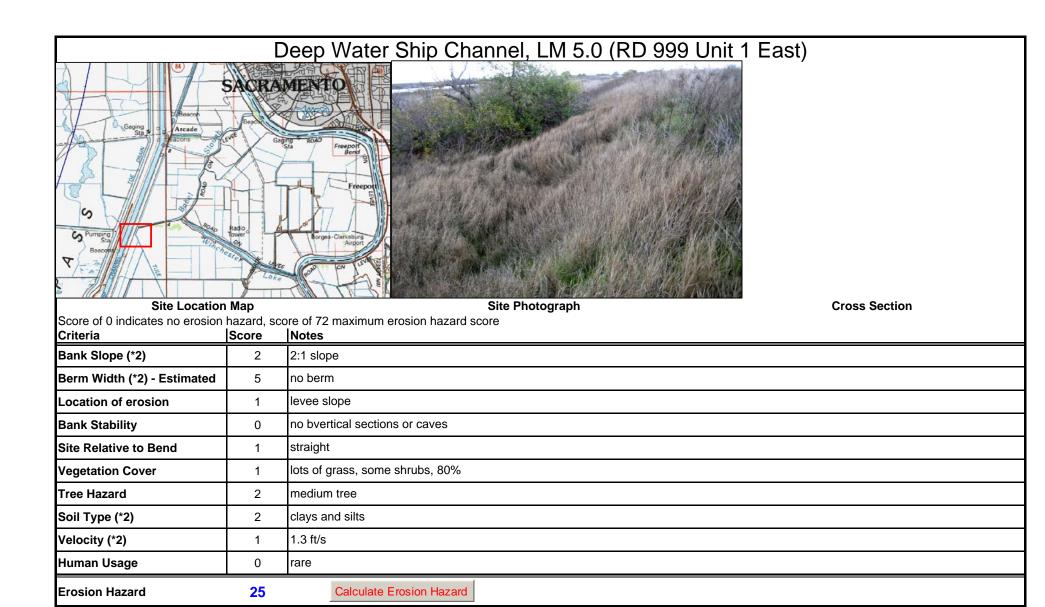
ograph Cross Section

Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria | Score | Notes

Criteria	Score	Notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	0	40 ft
Location of erosion	4	berm and toe
Bank Stability	0	no vertical sections or caves
Site Relative to Bend	4	outside of a 90 degree bend
Vegetation Cover	1	70%
Tree Hazard	0	no trees
Soil Type (*2)	4	sands and silts
Velocity (*2)	1	1.68 ft/s
Human Usage	1	occassional
Erosion Hazard	26	Calculate Erosion Hazard











Site Photograph

Cross Section

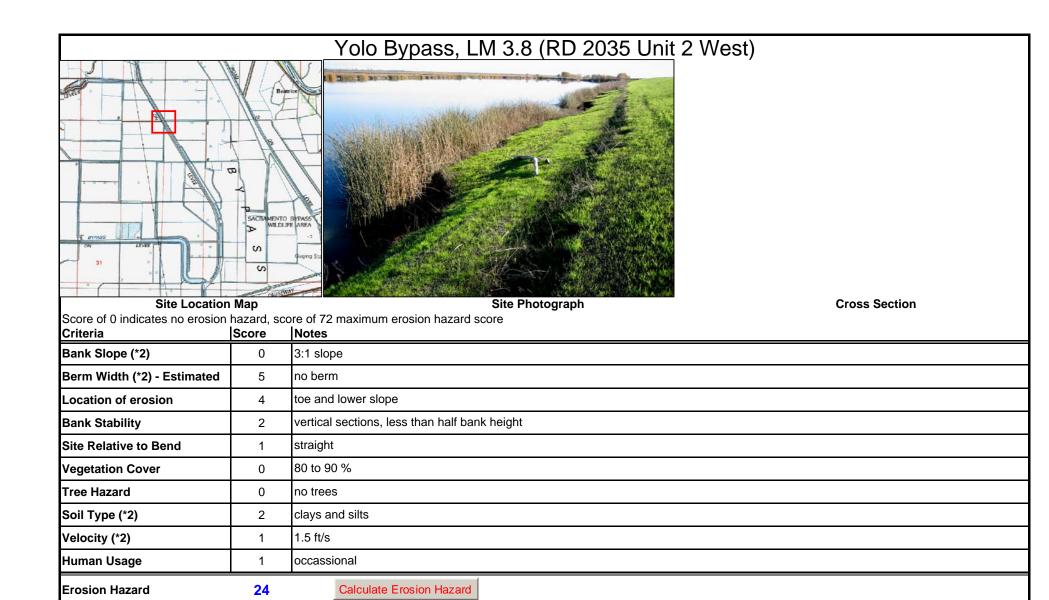
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

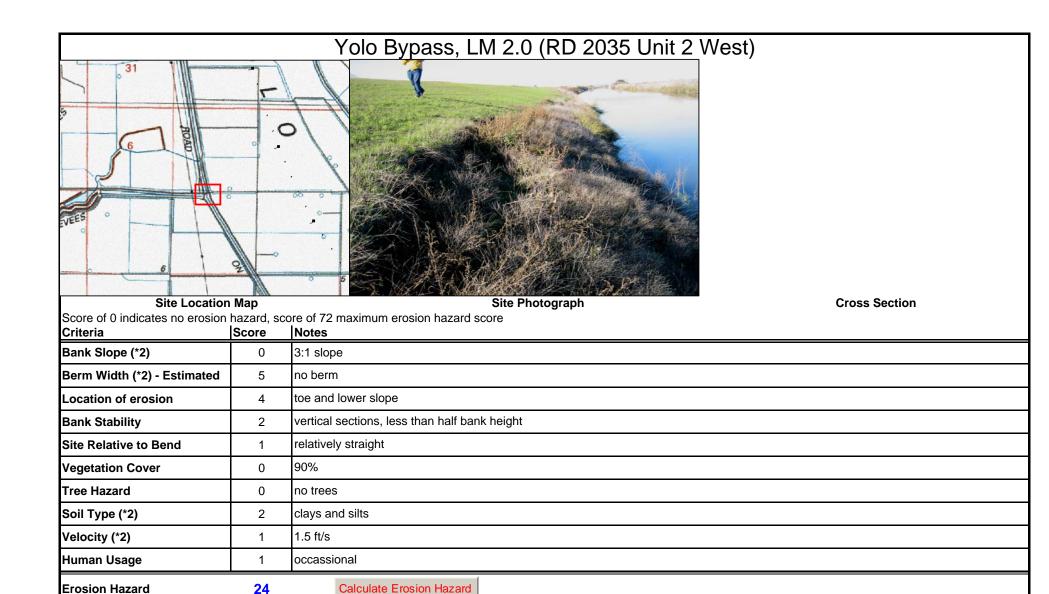
Criteria	Score	Notes
Bank Slope (*2)	0	3:1 slope
Berm Width (*2) - Estimated	5	no berm
Location of erosion	4	toe and lower slope
Bank Stability	2	vertical sections, less than half bank height
Site Relative to Bend	1	straight
Vegetation Cover	1	70%
Tree Hazard	0	no trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	1	1.5 ft/s
Human Usage	1	occassional
Erosion Hazard	25	Calculate Erosion Hazard

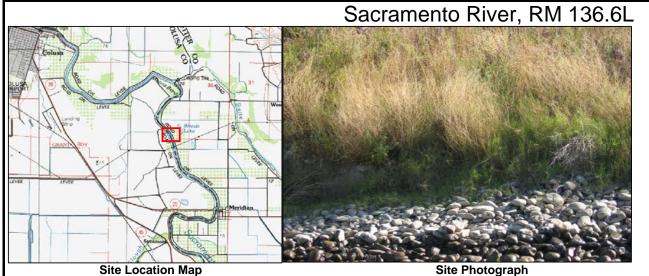


Site Location Map Site Photograph Cross Section
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score
Criteria Score Notes

Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	5	no berm
Location of erosion	1	mid levee slope
Bank Stability	2	short vertical sections
Site Relative to Bend	1	straight
Vegetation Cover	1	80%
Tree Hazard	0	no trees
Soil Type (*2)	2	slits and clays
Velocity (*2)	0	0.6 ft/s
Human Usage	2	season, frequent for Duck Hunters
Erosion Hazard	25	Calculate Erosion Hazard





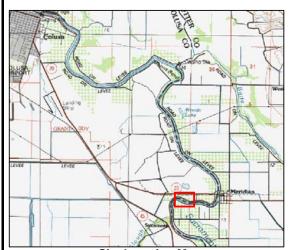


Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score Criteria Notes

Criteria	Score	notes
Bank Slope (*2)	3	1.5:1 slope
Berm Width (*2) - Estimated	0	30 ft
Location of erosion	2	lower bank
Bank Stability	0	no vertical sections or caves
Site Relative to Bend	1	straight
Vegetation Cover	1	70%
Tree Hazard	0	no trees
Soil Type (*2)	2	clays and silts
Velocity (*2)	3	4.91 ft/s
Human Usage	2	seasonal

Cross Section

Erosion Hazard 22 Calculate Erosion Hazard



Sacramento River, RM 133.0L



Site Location Map

Site Photograph

Cross Section

Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

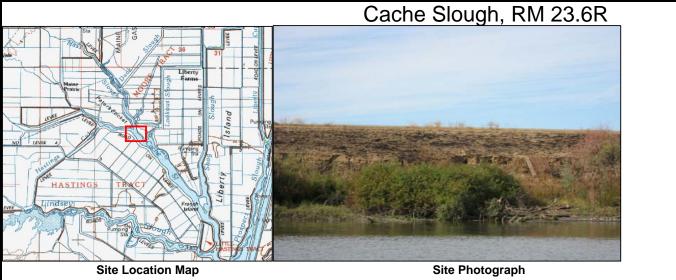
Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	0	30 ft
Location of erosion	2	lower bank
Bank Stability	2	vertical sections less than half bank height
Site Relative to Bend	2	just downstream of a bend
Vegetation Cover	2	60%
Tree Hazard	0	no trees
Soil Type (*2)	1	clays and rounded stone
Velocity (*2)	3	4.97 ft/s
Human Usage	2	seasonal
Erosion Hazard	22	Calculate Erosion Hazard



Site Location Map

Cross Section Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

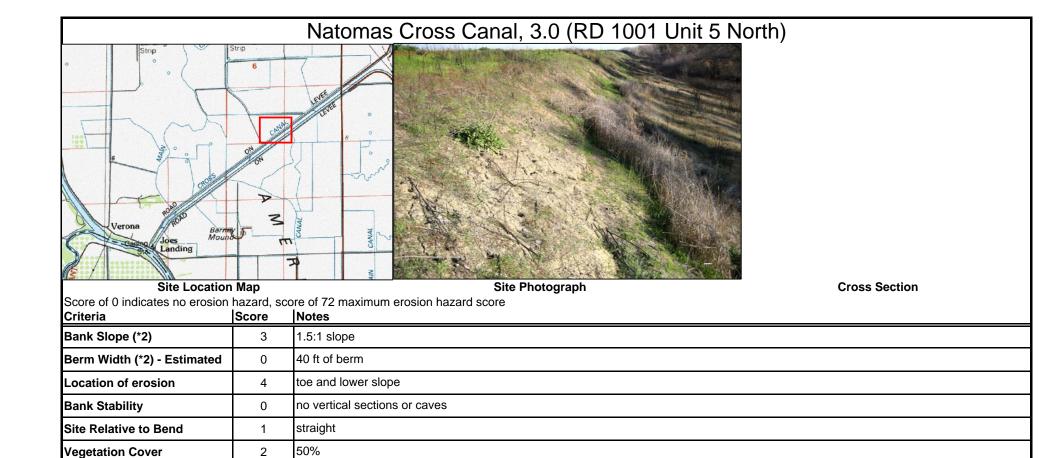
Criteria	Score	Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	2	10 ft
Location of erosion	0	upper levee slope
Bank Stability	0	no vertical sections or caves
Site Relative to Bend	1	relatively straight
Vegetation Cover	1	minimal in erosion area, 80% coverage on remaining land
Tree Hazard	2	medium trees
Soil Type (*2)	2	clays and gravels
Velocity (*2)	2	3 ft/s
Human Usage	2	seasonal
Erosion Hazard	22	Calculate Erosion Hazard



Site Location Map Site Photograph Cross Section
Score of 0 indicates no erosion hazard, score of 72 maximum erosion hazard score

Criteria		Notes
Bank Slope (*2)	2	2:1 slope
Berm Width (*2) - Estimated	0	no berm
Location of erosion	4	toe and lower bank
Bank Stability	2	some vertical sections, less than half bank slope
Site Relative to Bend	2	just downstream of a bend
Vegetation Cover	2	blotchy coverage, dense in spots, 50%
Tree Hazard	0	no trees
Soil Type (*2)	2	clay and silts
Velocity (*2)	0	0.27 ft/s
Human Usage	3	adjacent to levee road, monthly
Fracion Hazard	21	Calculate Fresion Hazard

Erosion Hazard 21 Calculate Erosion Hazard



Tree Hazard

Soil Type (*2)

Velocity (*2)

Human Usage

Erosion Hazard

0

2

1

20

no trees

1.5 ft/s

silts with clays

occassional

Calculate Erosion Hazard